Mississippi Testing Accommodations Manual

Revised (February 2017)

Mississippi Statewide Assessment System

Office of Student Assessment

Mississippi Department of Education

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I. Overview

The list of accommodations shows the numeric codes to be entered in the designated areas on student answer documents, test booklets, or online system**. The accommodations that are allowable on each of the statewide tests vary.** A list of allowable and non-allowable accommodations for each test is located in this document.

The **General Accessibility Features** are allowable and may be used by all students on each of the statewide tests. These accessibility features do not have to be entered online or on the student's answer documents. .

All eligible students may utilize appropriate assessment accommodations when participating in the statewide assessments. Any accommodation utilized for the assessment of students must be:

- based on the learning needs of the individual student through decisions made and officially documented on the **IEP/504/Lanugage Service (LS) Plan** prior to the test administration, or
- based on the student's **temporary physical disability**, and
- used during the student's **routine** classroom instruction, to include classroom assessment.

All English Learner students may utilize appropriate assessment accommodations when participating in the statewide assessments. Any accommodation utilized for the assessment of individual students must be:

- based upon the individual student's learning needs,
- based upon decisions made prior to the test administration, and
- used during the student's routine classroom instruction, to include classroom assessment.

The manual also contains other guides and resources, such as questions, recommendations, and checklists to guide you in determining appropriate accommodations.

II. Accommodation Request Form

Use this form for requesting accommodations that are *not* already documented as allowable (A98) or non-allowable (A99) in the current edition of the Mississippi Testing Accommodations Manual.

District Name:_____ District Code: ____

School Name:_____ School Code: ____

Name and Title of Requestor: _____

Accommodation(s) are requested for use on the following assessment(s): (Check all that apply.)

Algebra I: MAP _____	MST2: _____
Biology I: _____	MAP (G3-8): ELA_____ Math _____
English II: MAP_____ SATP2 _____	ELPT: _____
U. S. History: _____	MKAS^2: K-Readiness_____ 3rd Gr. Reading _____

Student Name: _____ ***or*** **Group Name**: _____
(If a group, fill in the primary teacher's name for the group and attach a list of the students and grade levels.)

Grade: _____ **Test Administration Date(s)**:_____,_____,_____,_____, _____

A. Please list the accommodation number(s) requested. If #99, please explain in detail.

B. Why does the student need this (these) accommodation(s)? *(Attach supporting evidence)*

C. Does this student routinely receive this accommodation in classroom instruction?
_____**Yes** _____**No**

D. Is this student receiving support/services through Special Education or Section 504 of the Rehabilitation Act of 1973? _____**Yes (*circle one*:** *IDEA/IEP* ***or*** *Section 504 Plan)* _____**No**

If yes on D, attach a copy of the Present Levels of Academic Achievement and Functional Performance // Present Levels of Performance page(s) ***and*** the Statewide Test Accommodations // Supplementary Aids and Services page(s) from the student's Individualized Education Program (IEP) or Section 504 Plan.

District Test Coordinator's Signature:_____ **Date:** _____

Please submit this form and supporting evidence at least **four (4) weeks prior to the test date** for which it is requested to the Office of Student Assessment, P. O. Box 771, Jackson, Mississippi 39205.

MDE USE ONLY

_____Approved

_____Denied Signature: _____

Reason for Denial:

Form ARF (Rev. 07/2015)

III. Important Notes

In the Testing Accommodations Chart (p. 17), specific accommodations have a tag reading, "REFER TO NOTE". The notes are listed below by number.

For all state assessments, a test administrator and a proctor must be present during the entire test administration for all students tested.

NOTE 1:

A. ACT-Approved: The use of ACT-Approved accommodations must be requested from ACT via official request forms. These are determined by ACT in compliance with the Americans with Disabilities Act (ADA) and the Diagnostic and Statistical Manual of Mental Disorders, 4th or 5th Edition. ACT-Approved Accommodations that result in ACT scores are fully reportable to colleges, scholarship agencies, the NCAA and other entities in addition to being used for state testing purposes.

B. Locally Approved: These are determined by the Testing Accommodations Coordinator (TAC) and the Testing Coordinator (TC) following specific ACT policy.

C. Non-college Reportable: These are determined by the Testing Accommodations Coordinator (TAC) following state or district guidelines. The use of a State-Allowed accommodation, after its use has been officially denied by ACT as an ACT-Approved accommodation, will render the student's score as not reportable to colleges, scholarship agencies, the NCAA and other entities; rather, they can only be used for state purposes.

NOTE 2: It should be noted that some accommodations used routinely in the classroom may not be allowable for statewide tests. The test results of students who use non-allowable accommodations are invalid and must be excluded from summary statistics. Any student with an invalid score is considered not tested. Allowable accommodations may change the method in which test items are presented and the method of the student's response to test items but will not interfere with what the test purports to measure. An unallowable accommodation provides an unfair advantage to the student and interferes with what the test purports to measure.

NOTE 3: Approval must be granted by the Office of Student Assessment (OSA) **four (4) weeks prior** to the use of accommodations that are not included in this list. Please complete the Accommodation Request Form and submit it to OSA. It is the responsibility of the OSA to determine whether the use of such accommodation(s) will affect the validity of the assessment.

NOTE 4:

A. Accommodations **23**, **24** and **25** relate to administering the test over several sessions and **no longer require approval from the Office of Student Assessment**. However, the entire assessment must be completed within the testing window. If an extension that exceeds or goes beyond the day the test administration is scheduled, the procedure must be documented and on file with the District Test Coordinator. If the student is testing over

several days, he/she is not allowed to change responses to questions answered during the previous testing sessions or preview questions that will be administered in a future session.

B. Timing codes are assigned by **ACT**.

C. **LAS Links** and SATP2 are untimed assessments.

D. For the **Kindergarten Readiness Assessment**, clicking [Resume Later] allows students to resume their test at a later time, starting on the same question number at which the test was paused but a different item. The STAR monitor password is required. Note: A different password can be set for each STAR class; be sure to enter the password for the class in which the student is testing. The test can be paused and resumed as many times as needed, but it can only be resumed within 8 days of when it was originally started. Closing the test window during a test will also allow a student to resume from where he or she left off, although this is not recommended.

   If the student clicks [Stop Test] and the monitor password is entered, the test is over and the student will need to begin a new test. The incomplete test will not be scored.

   For the **Kindergarten Readiness Assessment**, all students will have 90 seconds to answer each item. Extended time is currently unavailable for this assessment.

E. For the **Third Grade Reading Summative Alternate Assessment,** , students with disabilities (SWDs) and English learners (ELs) can click [Resume Later] to allow students to resume their test at a later time, starting on the same question number at which the test was paused but a different item. The STAR monitor password is required. Note: A different password can be set for each STAR class; be sure to enter the password for the class in which the student is testing. The test can be paused and resumed as many times as needed, but it can only be resumed within 8 days of when it was originally started. Closing the test window during a test will also allow a student to resume from where he or she left off, although this is not recommended.

   If the student clicks [Stop Test] and the monitor password is entered, the test is over and the student will need to begin a new test. The incomplete test will not be scored.

F. For the **Third Grade Reading Summative Alternate Assessment**, the General Education students, English learners, and students with disabilities will have a maximum of 270 seconds to answer each item.

G. For the **Third Grade Reading Summative Alternate Assessment**, students with disabilities (SWDs) and English learners (ELs) can have a maximum of 20 minutes to answer each question; however, the test must be completed by 3:00 p.m. or the end of the student's school day, whichever occurs first. The extended time accommodation must be listed in the student's IEP or Section 504 Plan and specified for this assessment area.

H. Students with a diagnosis of dyslexia who were evaluated by a licensed psychologist, psychometrist, or speech language pathologist (HB 1031, July 2012) can receive a maximum of 20 minutes to answer each question; however, the test must be completed by 3:00 p.m. or the end of the student's school day, whichever occurs first. Students must have a documented diagnosis of dyslexia on file in accordance with Miss. Code 37-173-1 et seq.

I. On the MAP, MST2, and SATP2 tests, Accommodations 24 and 25 are available to English Learners.

J. Third-Grade Reading Summative Assessment and the Alternate Assessment: Students with a diagnosis of dyslexia who were evaluated by a licensed psychologist, psychometrist, or speech language pathologist (HB 1031, July 2012) can receive extended time to complete the Mississippi state assessment. The test must be completed by 3:00 p.m. or the end of the student's school day, whichever occurs first. Students must have a documented diagnosis of dyslexia on file in accordance with Miss. Code 37-173-1 et seq.

NOTE 5:

A. For the **Kindergarten Readiness Assessment**, all students can test at a specific time of day if necessary.

B. For the **Third Grade Reading Summative and Alternate Assessment**, students with disabilities (SWDs) and English learners (ELs) can test at a specific time of day, if this accommodation (#**22**) is listed in the student's IEP or Section 504 Plan and specified for this assessment area.

NOTE 6: Paraphrasing is re-stating the text and does not include providing definitions or detailed explanations, using sign language, using a text scanner with voice synthesizer, or using other appropriate technology. Only directions may be paraphrased. Items, including sample questions, may not be paraphrased as part of a presentation accommodation.

NOTE 7:

A. Accommodations **53**, **55,** and **58** relate to the presentation of test directions and test items (questions and answer choices) to students. In addition to reading, these accommodations may involve writing the material on a blackboard, using sign language, using a text scanner with voice synthesizer, or using other appropriate technology.

B. For the English Language Proficiency Test, accommodations **55** and **58** are not allowed, as these accommodations interfere with what the test purports to measure.

C. When preparing to administer the test(s) to students who are deaf or hard of hearing or to students who are blind or visually impaired, test administrators may review eligible test material (i.e., math, science, or history test books; scripted directions for reading tests; non-reading portions of language arts tests) prior to test administration. The review must be authorized by the District Test Coordinator and must take place in a controlled, secure environment. A signed Confidentiality Agreement is required and must be on file when test administrators preview test items prior to the test administration. Test administrators should be familiar with specific symbols or abbreviations particular to the content area being assessed.

D. When working with a student who has limited English proficiency, consideration needs to be given as to whether the assessment should be explained to the student in his or her native language or other mode of communication unless it is clearly not feasible to do so.

E. Students for whom American Sign Language (ASL) is the primary language may have

directions and/or items signed to them, except for the reading sections of MAP. Other allowable signing systems are Signing Exact English (SEE), Signed English (SE), Sign Supported English (SSE or CASE), or Contact Sign (i.e., Pidgin Sign English [PSE]). Sign languages from other countries (i.e., Auslan, BSL, LSF) or non-standard sign systems (i.e., home sign) are not permitted to be used.

F. Guidance for the **Read-aloud Accommodations** on the MAP for students with an Individualized Education Program (IEP), Section 504 Plan, or Language Service Plan (LSP) who have this testing accommodation specified for this subject area:

ELA/English II
•A53 - For grades 3-8 and English II, the directions can be read to the students throughout the assessment.
•A55 and A58 – For grades 3-8 and English II, the directions and the questions and answer choices can be read aloud, but the reading passages cannot be read to the student. **Beginning with the 2016-2017 academic year, the read-aloud accommodation will be non-allowable for students in third grade. Reading the Writing Prompt is allowable.**

Math/Algebra I
•A53 - For grades 3-8 and Algebra I, the directions can be read to the students throughout the assessment.
•A55 and A58 – For grades 3-8 and Algebra I, the directions and the questions and answer choices can be read aloud to the student.

NOTE 8:

A. The Scribe (Accommodation #70) must write exactly what the student says as dictated. The Scribe may not edit or alter the student's dictation in any way. The student is responsible for all capitalization, punctuation, and spelling (must spell out each word). The student should review the draft composition and make any necessary edits, including edits to capital letters and punctuation. A Scribe may not assist the student during the editing process. The Scribe transfers verbatim the student's responses to an answer document or online system.

B. The dictation process and transfer of answers must occur under secure conditions with at least two persons present.

C. For the **ACT**, the term "scribe" refers to the Test Supervisor.

D. For the **Kindergarten Readiness Assessment**, students can dictate or gesture answers to a Scribe, and the Scribe will mark answers directly into online test system in the presence of the Test Administrator and Proctor.

E. For the **Kindergarten Readiness Assessment**, students with disabilities (SWDs) and English learners (ELs) can dictate or gesture answers to a Scribe, and the Scribe will mark answers directly into the online test system in the presence of the Test Administrator. For children who receive homebound services or community-based services (e.g., children with disabilities attending Head Start or other childcare center), the Proctor may also serve as a Scribe, if one is needed.

F. For the **Third Grade Reading Summative and Alternate Assessment,** , students with

disabilities (SWDs) can dictate or gesture answers to a Scribe, and the Scribe will mark answers directly into the online test system in the presence of the Test Administrator and Proctor. This accommodation (#70) must be listed in the student's IEP or Section 504 Plan and specified for this assessment area.

NOTE 9: Accommodation **47** relates to cueing. Cueing is assisting the student in focusing his/her attention. Cueing strategies include, but are not limited to, arrows, lines, space, contrasting colors, position or focal point, underlining, labeling, size, and shading. Cues may be used only in test directions and in test questions. Cues may not be used in the answer choices. Cues provided on answer booklets/documents must be erased before they are returned for scoring. Cues provided on test books do not have to be erased since test books are non-scorable documents.

A. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 10:

A. Accommodation **48** relates to the use of memory aids. A memory aid, fact chart, and/or resource sheet is something that helps a student remember how to find the answer; it should not give him/her the answer. This accommodation cannot interfere with what the test purports to measure. For example, if the test measures computation skills, a multiplication fact chart is a non-allowable accommodation since it gives the answer or a portion of the answer to the item assessing multiplication skills.

B. The compilation of allowable and non-allowable materials is by no means exhaustive. Prior approval is not required for the memory aids, fact charts, and/or resource sheets labeled allowable. All other material requires prior approval from the Office of Student Assessment (OSA). You must complete the Accommodation Request Form. Submissions may be sent any time during the school year, but no later than four (4) weeks prior to the test administration for which the use of the memory aid is intended. The memory aids, fact charts, and/or resource sheets for state assessments must be limited to 1-3 pages per content area.

C. Only a student who is visually-impaired may use the abacus to solve mathematics problems. No prior approval is required for use of the abacus by students with visual impairments.

D. For the **ACT**, an abacus (as listed in A**48** and A**98**) must be requested as an accommodation from ACT.

E. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 11: For accommodation **61**, calculators are allowable only in specified Calculator Sections for MAP Mathematics grades 6-8 and Algebra 1. Beginning with the 2011-2012 academic year,

i. (SATP2 Algebra I) all formulas, applications, and/or programs (including, but not limited to, Zoom Math/Zoom Algebra) **must be disabled or removed** from the calculators to be used by students.

ii. School districts must outline in their District Test Security Plan the

processes and/or procedures to be used to ensure that the calculators used by students during a state assessment administration for the tests listed above do not have any stored formulas, applications, and/or programs.

iii. Students may use personal calculators. However, the District Test Security Plan must address the processes and/or procedures to be used to ensure that personal calculators used by the students during a state assessment administration do not have any stored formulas, applications, and/or programs.

A. The calculator policy can be viewed at the following link:
MDE Calculator Policy

B. Calculators may be used on any **MS-CPAS2** test. The MDE's guidelines for calculator use on standardized assessments state that if using OSA approved graphing calculators, any formulas, applications, and / or programs must be cleared from the calculators before the assessment. Procedures for how to handle this issue should be outlined in the District Test Security Plan as this has been the policy since the 2011-2012 school year. Documentation related to specific calculators can be found at the MDE Website. The RCU recommends that districts not allow students to use the calculators built in to the operating systems on most computers as this is a test security issue.

C. Refer to the list of approved calculators as listed in the **ACT** materials and on the ACT website.
http://www.actstudent.org/faq/calculator.html?_ga=1.28160380.1154439628.141323420 7

D. The calculator policy can be viewed at the following link:
MDE Calculator Policy

E. Calculators may be used on any **MS-CPAS2** test. The MDE's guidelines for calculator use on standardized assessments state that if using OSA approved graphing calculators, any formulas, applications, and / or programs must be cleared from the calculators before the assessment. Procedures for how to handle this issue should be outlined in the District Test Security Plan as this has been the policy since the 2011-2012 school year. Documentation related to specific calculators can be found at the MDE Website. The RCU recommends that districts not allow students to use the calculators built in to the operating systems on most computers as this is a test security issue.

F. Refer to the list of approved calculators as listed in the **ACT** materials and on the ACT website.
http://www.actstudent.org/faq/calculator.html?_ga=1.28160380.1154439628.141323420 7

NOTE 12: Accommodation **73** – Tape record responses for later verbatim translation

i. Students must spell each word and note every punctuation mark as they dictate.

ii. Please consider using a tape recorder for a student's "draft."
iii. The tape can be played back to the student, who can stop and start the tape as necessary, spelling and punctuating the response more easily as dictation to the scribe takes place. The student must also note indentation or skipped lines during the dictation.
iv. The taped version can also be edited by the student.
v. The taped "draft" must not be written for the student to review until the dictation with spelling and punctuation has occurred. The student must also note indentation or skipped lines during the dictation.
vi. The student may be given the dictated response to review and may make revisions at that point.
vii. The dictation process must occur under secure conditions with at least two persons present.
viii. The response must be transcribed to the appropriate document or computer platform, if available, with appropriate Prompt Number gridded or in a blank Final Response Insert Page with appropriate Prompt Number gridded and the MSIS number written on the front cover of the Final Response Insert Page.
ix. If this method is used, the tape must be erased after the transcription has been completed.
x. This process, if used, should be added as an addendum to the School Test Security Plan.
xi. All persons (TA, Proctor, Scribe) involved in this process must sign Confidentiality Agreements.
xii. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 13: Accommodation 76 - Communication Board is not allowable for the Third Grade Reading Summative Alternate Assessment.

NOTE 14: Accommodation **78** – Typewriter or word processor (without grammar/syntax checker and without word completion/prediction feature)

i. All tools for spelling, grammar check, and syntax must be turned off. Additionally, the device (e.g., NEO) must have the extra features disabled (e.g., Google Docs, linked files, Write On! Lessons, etc.).
ii. The student may not have access to the Internet.
iii. Typed responses are not to be submitted to the vendor; these typed responses must be transcribed under secure conditions with at least two persons present.
iv. The person transcribing must duplicate exactly what the student wrote, including exact spelling, punctuation, indentation, skipped lines, etc.
v. The response must be transcribed to the appropriate document or computer platform, if available, with appropriate Prompt Number gridded or in a blank Final Response Insert Page with appropriate Prompt Number gridded and the MSIS number written on the front cover of the Final Response Insert Page.
vi. The typed response must be erased from the assistive technology.

vii. The typed response must include the student's name and MSIS number. The student's typed response is considered secure material and must be returned with all scorable testing material.

viii. This process, if used, should be added as an addendum to the School Test Security Plan.

ix. All persons (TA, Proctor, Scribe) involved in this process must sign Confidentiality Agreements.

x. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

Note 15: Accommodation 79 – This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 156: Accommodation 81 – Electronic word-to-word translating dictionaries may be used with the audio/speaker function turned off. In addition, the test administrator must ensure that electronic dictionaries are not connected to the Internet or any additional software. Refer to the Suggested List of Bilingual Dictionaries for EL Students for word-to-word glossaries.

A. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 17: The Braille test administrator may review Braille test material prior to test administration, but the review must be authorized by the District Test Coordinator and must take place in a controlled, secure environment.

IV. Questions to Guide Evaluation of Accommodation Use on State Assessments at the School Level

1. Are there policies in place to ensure ethical testing practices, the standardized administration of assessments, and that test security practices are followed before, during, and after testing?
2. Are there procedures in place to ensure test administration procedures are not compromised with the provision of accommodations?
3. Are students receiving accommodations as documented in their IEPs/504/LS Plans?
4. Are there procedures in place to ensure that test administrators adhere to directions for the implementation of accommodations?
5. How many students with IEPs/504/LS Plans are receiving accommodations?
6. What types of accommodations are provided and are some used more than others?
7. Are students provided accommodations tailored to their individualized needs or are all students receiving the same accommodations?
8. How well do students who receive accommodations perform on classroom tests, local assessments, and state assessments? If students are not meeting the expected level of performance, is it due to the students not having had access to the necessary instruction, not receiving the accommodation, or using accommodations that were not effective?

Student-level questions need to be considered by the IEP/504/LS Team to evaluate the use of accommodations. It is critical to continually evaluate the use of accommodations to ensure that the most appropriate and successful accommodations are being used.

Questions to Guide Evaluation of Accommodation Use on State Assessments at the Student Level

1. What accommodations are used by the student during instruction and on classroom assessments?
2. What are the results of classroom assignments and classroom tests when accommodations are used versus when accommodations are not used? If a student did not meet the expected level of performance, is it due to not having

access to the necessary instruction, not receiving the appropriate accommodations, or ineffective use of accommodations?

3. What accommodations are used by the student during state assessments?
4. What are the results of state assessments when accommodations are used? Does this performance mirror performance on classroom tests? If a student did not meet the expected level of performance, is it due to lack of access to the necessary instruction, not receiving the appropriate accommodations, or ineffective use of accommodations?
5. What is the student's perception of how well the accommodation worked?
6. Which accommodations seemed to be least effective or ineffective?
7. What combinations of accommodations seem to be effective?
8. What are the difficulties encountered in the use of accommodations?
9. What are the perceptions of teachers and others about how the accommodation appears to be working?

School-level questions should be addressed by a committee responsible for continuous improvement efforts. It is critical to stress that evaluation is not the responsibility of just one individual. The entire IEP/504/LS Team should contribute to the information gathering and decision-making processes.

V. Guidelines for Administering Specific Accommodations

This information must be used by the test administrator in providing these accommodations on state assessments. If questions arise regarding the use of accommodations or these guidelines, contact your STC (School Testing Coordinator).

Reading Accommodation

Test administrators providing a reading accommodation must ensure that all students understand what is expected of them when receiving a reading accommodation. However, test administrators cannot answer questions about specific test items. When reading test items aloud, test administrators must be careful not to inadvertently give clues that indicate the correct answer or help eliminate some answer choices. Test administrators should use even inflection so that the student does not receive any cues by the way the information is read. It is important for test administrators to read test items/questions, answer choices, and graphics (tables, charts, graphs, and illustrations) verbatim (word-for-word), exactly as written. Test administrators may not clarify, elaborate, or provide assistance to students. It is recommended that a proctor be used in the setting for a reading accommodation. At no time may a proctor provide a reading accommodation or a reading accommodation be recorded. The test administrator should understand the protocols for administering a specific assessment.

Sign Language or Native Language Interpreter

When using either a sign language or native language interpreter during the time oral instruction is given to the student, the interpreter may only interpret the directions for the student.

For students who are provided a sign language interpreter as a reading accommodation, the interpreter must sign verbatim the individual test items and answer choices. When signing the individual test items and answer choices the interpreter must not clarify, elaborate, paraphrase, or provide assistance with the meaning of words.

Marking Answers in Test Booklet

Students may mark multiple-choice and gridded answers in the test booklet instead of marking the answers on an answer document. Answers to open-ended responses must be written in the answer document or recorded online by a scribe (proctor or assistant). Two certified individuals must transcribe the answers verbatim to a regular test booklet or online system containing the student's demographic information.

Dictation to a Scribe (Proctor or Assistant)

Scribes may be provided for students with disabilities who are significantly impacted in the area of written expression or who have a physical disability that impedes their motor process or ability to write. Scribes should be impartial and must write exactly what the student dictates. Scribes should not affect the outcome of a test in any way. Scribes are not allowed to elaborate on what is being written. They cannot answer or explain anything to the student during testing and must be careful not to give hints of any type. The student must be allowed to review and edit what the scribe has written.

Extended Time

Students who are regularly given extended time on classroom activities, classroom assignments, and classroom tests may qualify for a specified amount of extended or additional time on selected state assessments. Extended or additional time varies depending on the particular state assessment. Decisions should be made on a case-by-case basis, keeping in mind all the accommodations being provided and the nature of the assessment. For example, if a read-aloud accommodation or scribe is being used, extended time may not be necessary.

Large Print

Students who regularly use large-print materials in the classroom may qualify for large-print materials on state assessments. The use of a large-print answer document for students testing with a large-print test booklet is required on selected state assessments. Two certified individuals must transcribe the answers verbatim to a regular test booklet or online system containing the student's demographic information.

Braille

Students who regularly use braille materials in the classroom qualify for braille materials on selected state assessments. Two certified individuals must transcribe the answers verbatim to a regular test booklet containing the student's demographic information.

Templates

Templates are used by students to aid in reading or writing. A template is not a graphic organizer. Templates are the size of an index card or larger with a "cut out" area to allow the student to see or write one word, multiple words, or a line of print at a time. The template may also be used on the answer document or online to aid the student in gridding one answer choice for each test question. The template is moved down the page or answer document as the student reads, writes, or works.

Administered by a Specific Teacher

There are situations where it is appropriate for the IEP/504 Committee to specify a teacher to serve as the student's test administrator. Care, however, should be given in selecting this accommodation. There are situations where it is impossible to provide this accommodation (e.g., when the decision for an individual administration by the student's special education teacher has been selected for five different students in the same teacher's classroom).

Assistive Technology/Communication Device

The use of Assistive Technology/Communication Device must be appropriate so that it does not invalidate a state assessment or supplant the skill that the state assessment is designed to measure. Extreme caution must be taken to ensure that when using any type of Assistive Technology/Communication Device the cognition is performed entirely by the student unless the device is allowed on a state assessment. (e.g., the use of a calculator). MDE Approval is required for all communication devices prior to the student taking a state assessment.

With Other Accommodations Needed Due to the Nature of the Disability or the Level of Language Proficiency

The accommodations checklists, although not exhaustive, have been provided to identify approved accommodations available to students for use on state assessments. In the event that an accommodation used during instruction and on classroom tests is requested for use on a state assessment, and the accommodation is not listed on the accommodations checklist, the accommodation may be requested by selecting the "With other accommodations needed due to the nature of the disability and the nature of the assessment".

When this accommodation is selected, the DTC completes the "Form Requesting Testing Accommodations Needing MDE Approval". The form is completed in its entirety and submitted by the STC to the MDE no later than four weeks prior to the assessment to be administered. Additional documentation (prior practice documentation in the IEP/504 Plan, proof of prior practice in the classroom on a regular basis, and proof of success of the accommodation) must be provided.

VI. Accommodations Chart for Online and Paper-Pencil Administrations

Mississippi Assessment Program (MAP) for Grades 3-8
Mississippi Assessment Program Alternate (MAP-A) Grades 3-8
Mississippi Science Test (MST2) Grades 5 and 8
Students with Current IEPs, 504 Plans, and/or Language Service Plans

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
4	Individually to accommodate specific disability	No	No	Yes	Yes	Yes	Yes
7	At home (only for homebound students)	No	No	Yes	Yes	Yes	Yes
8	In a study carrel	Yes	Yes	Yes	Yes	Yes	Yes
9	With special lighting	No	Yes	Yes	Yes	Yes	Yes
11	Secure paper to work area with magnets/tape	No	No	Yes	Yes	Yes	Yes
21	With scheduled rest breaks	No	Yes	Yes	Yes	Yes	Yes
22	At time of day to accommodate student's disability. Refer to Note 5	No	No	Yes	Yes	Yes	Yes
23	Extended time through the end of the day	Yes	See Note 4	Yes	Yes	Yes	Yes
24	Administer the test over several sessions, specifying the duration each session (Testing must be completed within testing window) Refer to Note 4	Yes	See Note 4	Yes	Yes	Yes	Yes
25	Administer the test over several days, specifying the duration of each session (Testing must be completed within testing window) Not allowable for speaking component of the LAS Links Test for EL) Refer to Note 4	Yes	See Note 4	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
40	Large print (Paper/pencil version) (Accommodation 70 to transfer online)	No	Yes	Yes	Yes	Yes	Yes
41	Braille (responses must be transcribed verbatim) Refer to Note 17	No	No	Yes	Yes	Yes	Yes
43	Auditory trainers	No	No	Yes	Yes	Yes	Yes
44	Transparent color overlays	Yes	Yes	Yes	Yes	Yes	Yes
45	Magnifying glasses/magnifying equipment	No	No	Yes	Yes	Yes	Yes
47	Provide cues on answer form in pencil (e.g., arrows, lines, space, contrasting colors, position or focal point, underlining, labeling, size, shading and stop signs) (Cues may only be used in test directions and test questions. Cues may not be used in answer choices.) Refer to Note 9	Yes	No	Yes	Yes	Yes	Yes
48	Use of memory aids, fact charts, resource sheets, and/or abacus (Only a student who is visually-impaired may use the abacus to solve mathematics problems.) Refer to Note 10	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
50	Highlight key words/phrases in directions (e.g., complete sentences, show your work) by the test administrator	Yes	No	Yes	Yes	Yes	Yes
*	**ONLY choose one: 53, 55, or 58**						
53*	Read test directions (but NOT test items) to student or group-repeating and/or paraphrasing directions if needed Refer to Notes 6 & 7 ___human reader via book (e.g., paper-pencil, writing) ___human reader via online (MAP ELA and MKAS2 text never read aloud)	Yes	Yes	Yes	Yes	Yes	Yes
55*	Read test directions and test items (questions and answer choices) to individual students or the group-repeating directions/items but NOT paraphrasing Refer to Notes 6 & 7 ___human reader via book (e.g., paper-pencil, writing) ___screen reader online	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
58 *	Read test directions and test items (questions and answer choices) to individual students or the group- repeating directions/items, and paraphrasing directions only if needed Refer to Notes 8 ___human reader via book (e.g., paper-pencil, writing) ___human reader via online	Yes	No	Yes	Yes	Yes	Yes
61	Calculator for Mathematics Allowable ONLY Grades 6-8 Refer to Note 11	Note 12	No	No	No	Yes	Yes
70	Dictation of answers to test administrator/proctor (scribe) (Must be written exactly as the student dictates. Editing or altering in any way is prohibited. The student is responsible for capitalization, punctuation, and spelling. The student should review the draft for revision without prompting or assistance) Refer to Note 8	Yes	Yes	Yes	Yes	Yes	Yes
72	Allow marking of answers in test booklet and transferring of answers from test booklet to answer document by test administrator (i.e., large print) (The dictation process AND transfer of answers must occur under secure conditions with at least two persons present) Refer to Note 8	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
73	Tape record responses for later verbatim translation Refer to Note 12	No	No	Yes	Yes	Yes	Yes
74	Provide copying assistance between drafts Refer to Notes 8	No	No	Yes	Yes	Yes	Yes
75	Brailler	No	No	Yes	Yes	Yes	Yes
76	Communication board Refer to Note 13	No	No	Yes	Yes	Yes	Yes
77	Augmentative communication device	No	No	Yes	Yes	Yes	Yes
78	Computer/word processor/NEO (WITHOUT grammar/syntax checker or word completion/prediction features) Refer to Note 13	No	No	Yes	Yes	Yes	Yes
79	Computer/word processor/NEO (WITHOUT grammar/syntax checker, WITH word completion/prediction feature) Refer to Note 14 and 15	No	No	Yes	No	Yes	Yes
80	Adapted keyboards	No	No	Yes	Yes	Yes	Yes
81	Native language dictionaries for EL students (i.e. dictionaries that translate English words into the native language – no definitions are given in either language. Refer to Note 16	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
82	Spelling dictionaries (dictionaries show correct spelling of English words, do NOT give definitions)	No	No	No	No	Yes	Yes
98	Other allowable accommodation	Yes	Yes	Yes	Yes	Yes	Yes
99	Other non-allowable accommodation	No	No	No	No	No	No

Accommodations Chart for Online and Paper-Pencil Administrations

Mississippi Assessment Program End of Course and
Mississippi Subject Area Testing Program 2 for
Students with Current IEPs, 504 Plans, and Language Service Plans

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
4	Individually to accommodate specific disability	No	No	Yes	Yes	Yes	Yes	Yes
7	At home (only for homebound students)	No	No	Yes	Yes	Yes	Yes	Yes
8	In a study carrel	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	With special lighting	No	Yes	Yes	Yes	Yes	Yes	Yes
11	Secure paper to work area with magnets/tape See Note	No	No	Yes	Yes	Yes	Yes	Yes
21	With scheduled rest breaks	No	Yes	Yes	Yes	Yes	Yes	Yes
22	At time of day to accommodate student's disability. Refer to Note 5	No	No	Yes	Yes	Yes	Yes	Yes
23	Extended time through the end of the day	Yes	See Note 4	Yes	Yes	Yes	Yes	Yes
24	Administer the test over several sessions and/or days, specifying the duration each session (Testing must be completed within testing window) Refer to Note 4	Yes	See Note 4	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments ; excludes ELPT)*	ELPT	Algebra I	Biology I	English II Read/Voc	English II Writing/ Grammar	U. S. History
25	Administer the test over several days, specifying the duration of each session (Testing must be completed within testing window) Not allowable for speaking component of the LAS Links Test for EL. Refer to Notes 4	Yes	See Note 4	Yes	Yes	Yes	Yes	Yes
40	Large print (Paper/pencil version) (Accommodation 70 to transfer online)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
41	Braille (responses must be transcribed verbatim) REFER TO NOTE 17	No	No	Yes	Yes	Yes	Yes	Yes
43	Auditory trainers	No	No	Yes	Yes	Yes	Yes	Yes
44	Transparent color overlays	Yes	Yes	Yes	Yes	Yes	Yes	Yes
45	Magnifying glasses/magnifying equipment	No	No	Yes	Yes	Yes	Yes	Yes
47	Provide cues on answer form in pencil (e.g., arrows, lines, space, contrasting colors, position or focal point, underlining, labeling, size, shading and stop signs) (Cues may only be used in test directions and test questions. Cues may not be used in answer choices.) Refer to Note 9	Yes	No	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra I	Biology I	English II Read/Voc	English II Writing/ Grammar	U. S. History
48	Use of memory aids, fact charts, resource sheets, and/or abacus (Only a student who is visually-impaired may use the abacus to solve mathematics problems.) Refer to Note 10	Yes	No	Yes	Yes	Yes	Yes	Yes
50	Highlight key words/phrases in directions (e.g., complete sentences, show your work) by the test administrator	Yes	No	Yes	Yes	Yes	Yes	Yes
*	**ONLY choose one: 53, 55, or 58**							
53*	Read test directions (but NOT test items) to student or group-repeating and/or paraphrasing directions if needed Refer to Notes 6 & 7 ___human reader via book (e.g., paper-pencil, writing) ___human reader via online	Yes	Yes	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
55*	Read test directions and test items (questions and answer choices) to individual students or the group-repeating directions/items but NOT paraphrasing Refer to Notes 6 & 7 ___human reader via book (e.g., paper-pencil, writing) ___screen reader online	Yes	No	Yes	Yes	Yes	Yes	Yes
58*	Read test directions and test items (questions and answer choices) to individual students or the group- repeating directions/items, and paraphrasing directions only Refer to Notes 7 & 8 ___human reader via book (e.g., paper-pencil, writing) ___human reader via online	Yes	No	Yes	Yes	No	Yes	Yes
61	Calculator for Mathematics Allowable ONLY Grades 6-8 Refer to Note 11	See Note 12	No	Yes	No	No	No	No

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
70	Dictation of answers to test administrator/proctor (scribe) (Must be written exactly as the student dictates. Editing or altering in any way is prohibited. The student is responsible for capitalization, punctuation, and spelling. The student should review the draft for revision without prompting or assistance) Refer to Note 8	Yes	Yes	Yes	Yes	Yes	Yes	Yes
72	Allow marking of answers in test booklet and transferring of answers from test booklet to answer document by test administrator (i.e., large print) (The dictation process AND transfer of answers must occur under secure conditions with at least two persons present) Refer to Note 8	Yes	No	Yes	Yes	Yes	Yes	Yes
73	Tape record responses for later verbatim translation Refer to Note 12	No	No	Yes	Yes	Yes	Yes	Yes
74	Provide copying assistance between drafts Refer to Notes 8	No	No	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
75	Brailler	No	No	Yes	Yes	Yes	Yes	Yes
76	Communication board	No	No	Yes	Yes	Yes	Yes	Yes
77	Augmentative communication device	No	No	Yes	Yes	Yes	Yes	Yes
78	Computer/word processor/NEO (WITHOUT grammar/syntax checker or word completion/prediction features) Refer to Note 14	No	No	Yes	Yes	Yes	Yes	Yes
79	Computer/word processor/NEO (WITHOUT grammar/syntax checker, WITH word completion/prediction feature)	No	No	Yes	Yes	Yes	No	Yes
80	Adapted keyboards	No	No	Yes	Yes	Yes	Yes	Yes
81	Native language dictionaries for EL students (i.e. dictionaries that translate English words into the native language – no definitions are given in either language. Refer to Note 16	Yes	No	Yes	Yes	Yes	Yes	81

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
82	Spelling dictionaries (dictionaries show correct spelling of English words, do NOT give definitions)	No	No	Yes	Yes	No	No	Yes
98	Other allowable accommodation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
99	Other non-allowable accommodation	No	No	No	No	No	Yes	No

VI. General Accessibility Features for ALL STUDENTS

#	Feature	Allowable
1	At the front of the room	Yes
2	Facing test administrator while directions are given	Yes
3	In a small group	Yes
5	In a familiar room	Yes
6	With a familiar teacher	Yes
44	Transparent color overlays	Yes
46	Templates to reduce visible print	Yes
49	Cue student to stay on task	Yes
60	Use of highlighter by student in test booklet	Yes
98	Other **allowable** accommodation	Yes
100	Use of a computer mouse	Yes

VII. Do's and Don'ts When Selecting Accommodations

Accommodations should enable the students to participate more fully in instruction and assessments and to better demonstrate their knowledge and skills. They must be aligned with and be part of daily instruction; accommodations must not be introduced for the first time during the testing of a student.

Do...make accommodation decisions based on individualized needs.	Don't...make accommodation decisions based on whatever is easiest to do (e.g., preferential seating).
Do...refer to state accommodation policies and understand implications of selections.	Don't...select every accommodation possible on a checklist simply to be "safe".
Do...get input about accommodations from teachers, parents, and students, and use it to make decisions at the IEP/504 planning meeting.	Don't...make decisions about instructional and state assessment accommodations alone.
Do...select instructional and state assessment accommodations based on specific individual needs in each content area.	Don't...assume certain accommodations, such as extra time, are appropriate for every student in every content area.
Do...provide opportunities for students to practice built in online accommodations throughout the year.	Don't...introduce an online accommodation to the student the day of the test.
Do...be familiar with the types of accommodations that can be used as both instructional and assessment accommodations.	Don't...assume that all instructional accommodations are appropriate for use on state assessments.
Do...evaluate accommodations used by the student.	Don't...assume the same accommodations remain appropriate year after year.
Do...be certain to document instructional and state assessment accommodation(s) in the IEP/504/LS Plan.	Don't...use an accommodation that has not been documented in the IEP/504/LS Plan.
Do...select accommodations that reduce the effect of the disability to access instruction and demonstrate learning.	Don't...select accommodations unrelated to documented student learning needs or those intended to give students an unfair advantage.

VIII. List of Abbreviations and Acronyms

ADA	Americans with Disabilities Act
ADD; AD/HD; ADHD; ADD/In	Attention-Deficit/Hyperactivity Disorder; ADD Inattentive
AT	Assistive Technology
AU	Autism
BIP	Behavior Intervention Plan
DB	Deafness/Deaf Blind
DD	Developmental Delayed
EmD	Emotional Disability
FBA	Functional Behavioral Assessment
FAPE	Free and Appropriate Public Education
HI	Hearing Impaired
ID	Intellectual Disabilities
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Program
LRE	Least Restrictive Environment
LS	Language Speech
OHI	Other Health Impairment
OI	Orthopedic Impairment
MD	Multiple Disabilities
MDR	Manifestation Determination Review
PLAAFP	Present Levels of Academic Achievement and Functional Performance
RS	Related Services
RTI	Response to Intervention
SLD	Specific Learning Disability
SLI	Speech Language Impairment
SC	Self-Contained
TBI	Traumatic Brain Injury
VI	Visual Impairment

Mississippi Testing Accommodations Manual

Reference Guide: Allowable and Non-Allowable Accommodations

Revised February 2017

Mississippi Statewide Assessment System

Office of Student Assessment

Mississippi Department of Education

Accommodation 48

LANGUAGE ARTS – ALLOWABLE

Allowable Memory Aid

Topic

Introduction

Body		
Paragraph 1	Paragraph 2	Paragraph 3

Conclusion

Allowable Memory Aid

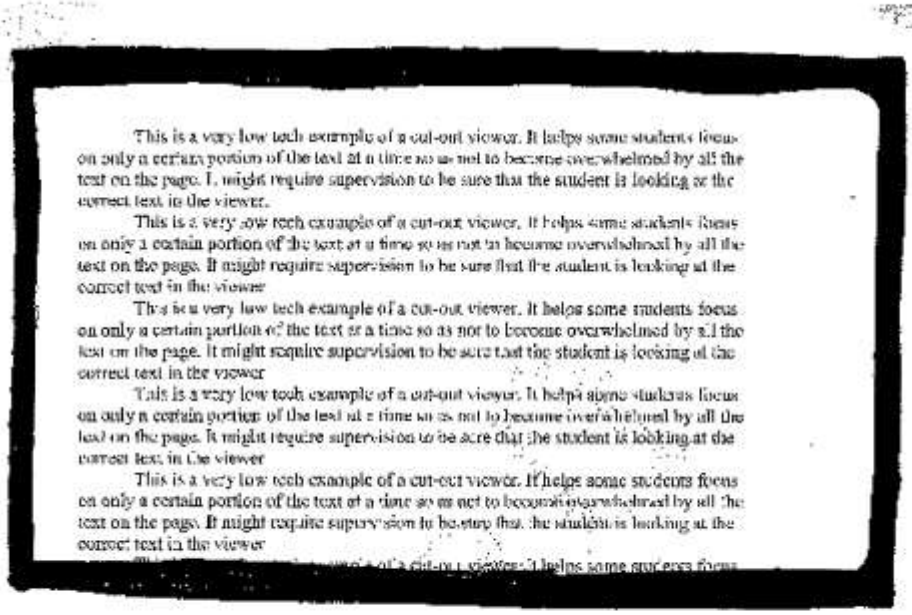
Allowable Memory Aid

Proofreading Checklist

Read each question below. Then check your paper. Correct any mistakes that you find. After you have corrected them, put a checkmark in the box next to the questions.

- ☐ 1. Did I spell all the words correctly?
- ☐ 2. Does each sentence state a complete thought?
- ☐ 3. Are there any run-on sentences or fragments?
- ☐ 4. Did I capitalize all proper nouns?
- ☐ 5. Did I end each sentence with the correct end mark?
- ☐ 6. Did I use commas, apostrophes, and quotation marks correctly?

Allowable Memory Aid



This is a very low tech example of a cut-out viewer. It helps some students focus on only a certain portion of the text at a time so as not to become overwhelmed by all the text on the page. It might require supervision to be sure that the student is looking at the correct text in the viewer.

This is a very low tech example of a cut-out viewer. It helps some students focus on only a certain portion of the text at a time so as not to become overwhelmed by all the text on the page. It might require supervision to be sure that the student is looking at the correct text in the viewer

This is a very low tech example of a cut-out viewer. It helps some students focus on only a certain portion of the text at a time so as not to become overwhelmed by all the text on the page. It might require supervision to be sure that the student is looking at the correct text in the viewer

This is a very low tech example of a cut-out viewer. It helps some students focus on only a certain portion of the text at a time so as not to become overwhelmed by all the text on the page. It might require supervision to be sure that the student is looking at the correct text in the viewer

Accommodation 48

LANGUAGE ARTS - NON-ALLOWABLE

A **friendly letter** has five parts. They are the heading (1), greeting (2), body (3), closing (4), and signature (5). Match each number with the letter part below.

(1)
234 Mississippi Street
Anywhere, Mississippi 54545
Date, Year

(2)
Dear Sam,

(3)
I am so glad that you are moving to Mississippi. I think you will really like the fact that it does not get so cold in the winter. It does get cold, just not as cold as it gets in Denver.

Have you started packing yet? Be sure you bring all of your cards so we can trade. It will really be fun to have you living so close to my house. We can play every day!

Let me know what day you are supposed to get here. I can hardly wait!

(4)
Your friend,

(5)
Dimitri

NON-ALLOWABLE

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Words	Rules	Examples
bad badly	*Bad* is an adjective. It can be used after linking verbs like look and feel. *Badly* is an adverb.	This was a bad day. I feel bad. I play badly.
borrow lend	*Borrow* means "to take." *Lend* means "to give."	You may borrow my pen. I will lend it to you for the day.
can may	*Can* means "to be able to do something." *May* means "to be allowed or permitted."	Nellie can read quickly. May I borrow your book?
good well	*Good* is an adjective. *Well* is usually an adverb. It is an adjective only when it refers to health.	The weather looks good. She sings well. Do you feel well?
in into	*In* means "located within." *Into* means "movement from the outside to the inside."	Your lunch is in that bag. He jumped into the pool.
its it's	*Its* is a possessive pronoun. *It's* is a contraction of *it is*.	The dog wagged its tail. It's cold today.
let leave	*Let* means to "permit or allow." *Leave* means "to go away from" or "to let remain in place."	Please let me go swimming. I will leave soon. Leave it on my desk.
lie lay	*Lie* means "to rest or recline." *Lay* means "to put or place something."	The dog lies in its bed. Please lay the books there.
sit set	*Sit* means "to rest in one place." *Set* means "to place or put."	Please sit in this chair. Set the vase on the table.
teach learn	*Teach* means "to give instruction." *Learn* means "to receive instruction."	He teaches us how to dance. I learned about history.
their there they're	*Their* is a possessive pronoun. *There* is an adverb. It may also begin a sentence. *They're* is a contraction of *they are*.	Their coats are on the bed. Is Carlos there? There is my book. They're going to the store.
two to too	*Two* is a number. *To* means "in the direction of." *Too* means "more than enough" and "also."	I bought two shirts. A squirrel ran to the tree. May we go too?

NOT ALLOWABLE

Topic

1. Attention getter:
2. Information:
3. Thesis statement:

Paragraph 1	Paragraph 2	Paragraph 3
Reasons/Facts/Examples	Reasons/Facts/Examples	Reasons/Facts/Examples

Conclusion

Thesis restated:
Opinion/Prediction/Question:

NON-ALLOWABLE

Plot: What is the story about?
Mood: What is the feeling of the story?
Setting: Where does this story take place?
Characters: Who is the story about?

NON-ALLOWABLE

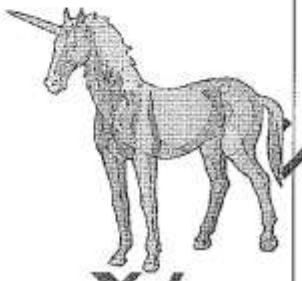
Contractions	Synonyms- same
he'll - he will can't - cannot she's - she is	little - small big - huge shut - close hop – jump
Vowel Sounds	**Antonyms – opposite**
ee -feel ea – peach oa – boat ai - sail	cold – hot in – out up - down
Homophones	**Compare – Contrast**
their they're there doe dough to too two	apples / bananas red / yellow round / long fruit / fruit

NON-ALLOWABLE

Sample Phonetic Aids –-
Not Inclusive

i
i_e
igh
_y

ow
ou



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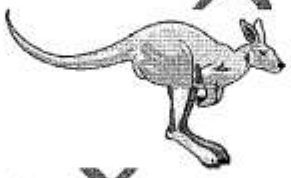


k
c
_ck

s
ce
ci_

NON-ALLOWABLE

Symbol	Action
^	Insert a missing word, letter or punctuation mark.
/	Use a lower case letter.
=	Capitalize a lower case letter.
√	Check spelling.
¶	Start a new paragraph.

NON-ALLOWABLE

Punctuation Mark:	When to use:	Example:
comma ,	to separate items in a series	In our garden we planted corn, peas, beans, and carrots.
apostrophe ´	to show ownership	My teacher's book is red.
question mark ?	to show that a question is being asked	How far is it to Jackson?
exclamation point !	to show a strong emotion	I won the prize!
hyphen -	to separate a word at the end of a line	Miles ran quick-ly down the trail.
colon :	to separate the hour from the minute	It is 12:45 p.m.
period .	at the end of a sentence	The state bird of Mississippi is the mockingbird.

NON-ALLOWABLE

Brainstorming

- Quickly generate a list of ideas to write about.

Prewriting

- Create a method for organizing your ideas such as a semantic web, an outline, or other graphic organizer.

Drafting

- Write your first copy.

Revising

- Rework your writing for ideas, style, voice, organization, and word choice.

Editing

- Fix any errors in punctuation, capitalization, or usage.

Polishing and Publishing

- Write a final draft that is free of errors. Share your writing with others.

NON-ALLOWABLE

1. **Interrogative – Asks a question. Use a "?"**
   Would you share your cookies?

2. **Declarative – Makes a Statement. Use a "."**
   I will not share my cookies.

3. **Imperative – Makes a command. Use a "."**
   Share your cookies with me.

4. **Exclamatory – Communicates strong emotion or surprise. Use an "!"**
   I cannot believe you ate 27 cookies!

NON-ALLOWABLE

*Example: Dolch Sight List
List 5

from	want	put	every
good	don't	too	pretty
any	how	got	jump
about	know	take	green
around	right	where	four

*** No sight word vocabulary, word walls, or content vocabulary should be displayed.**

NON-ALLOWABLE

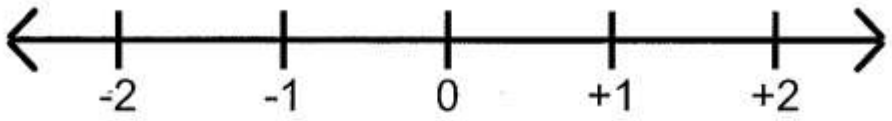
Accommodation 48

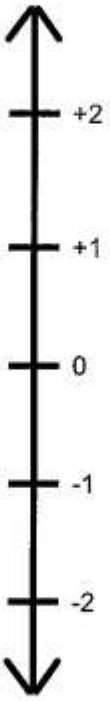
MATHEMATICS – ALLOWABLE

Allowable Memory Aid

Less Than | Greater Than

Allowable Memory Aid

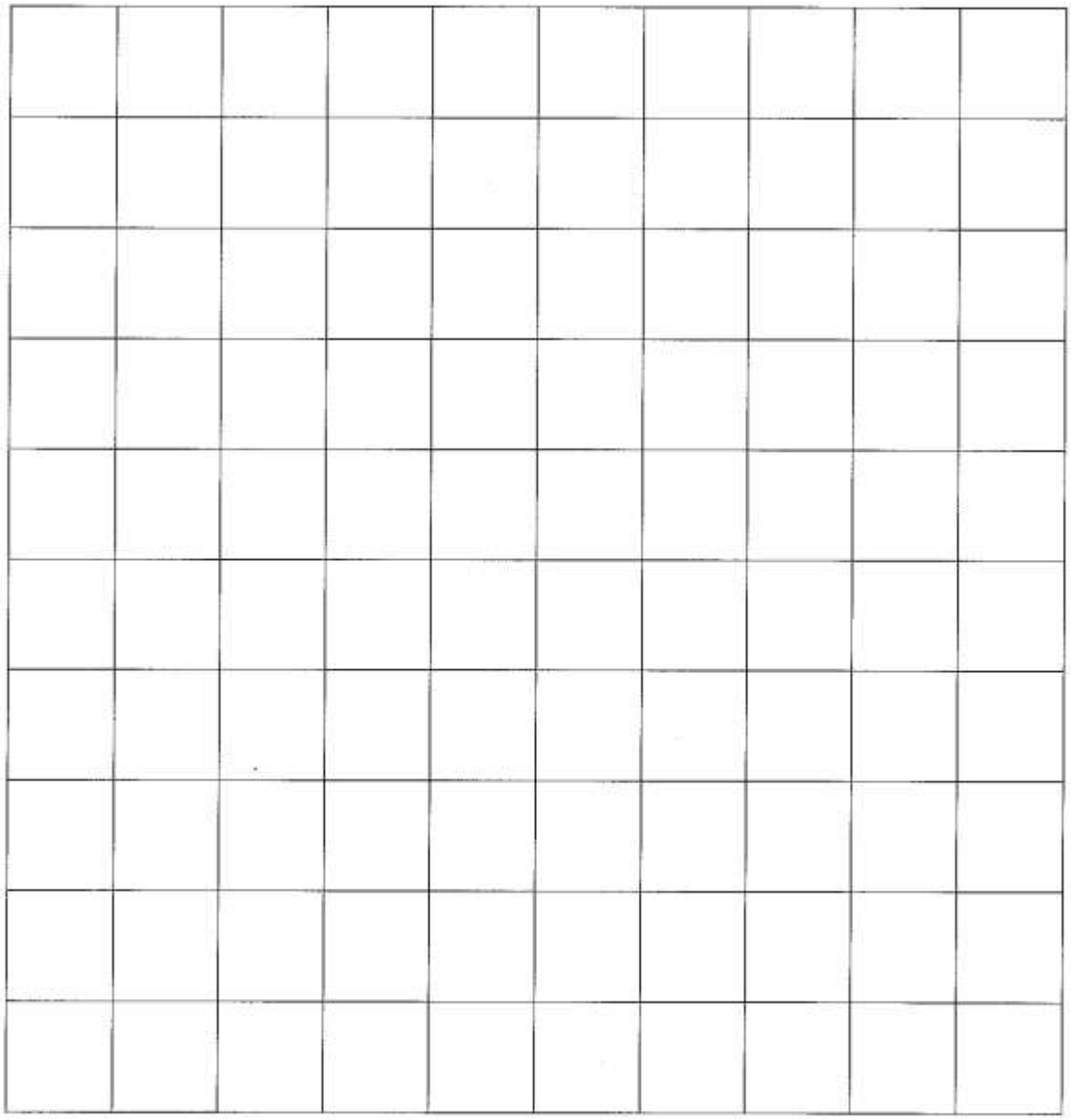




Allowable Memory Aid

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Allowable Memory Aid



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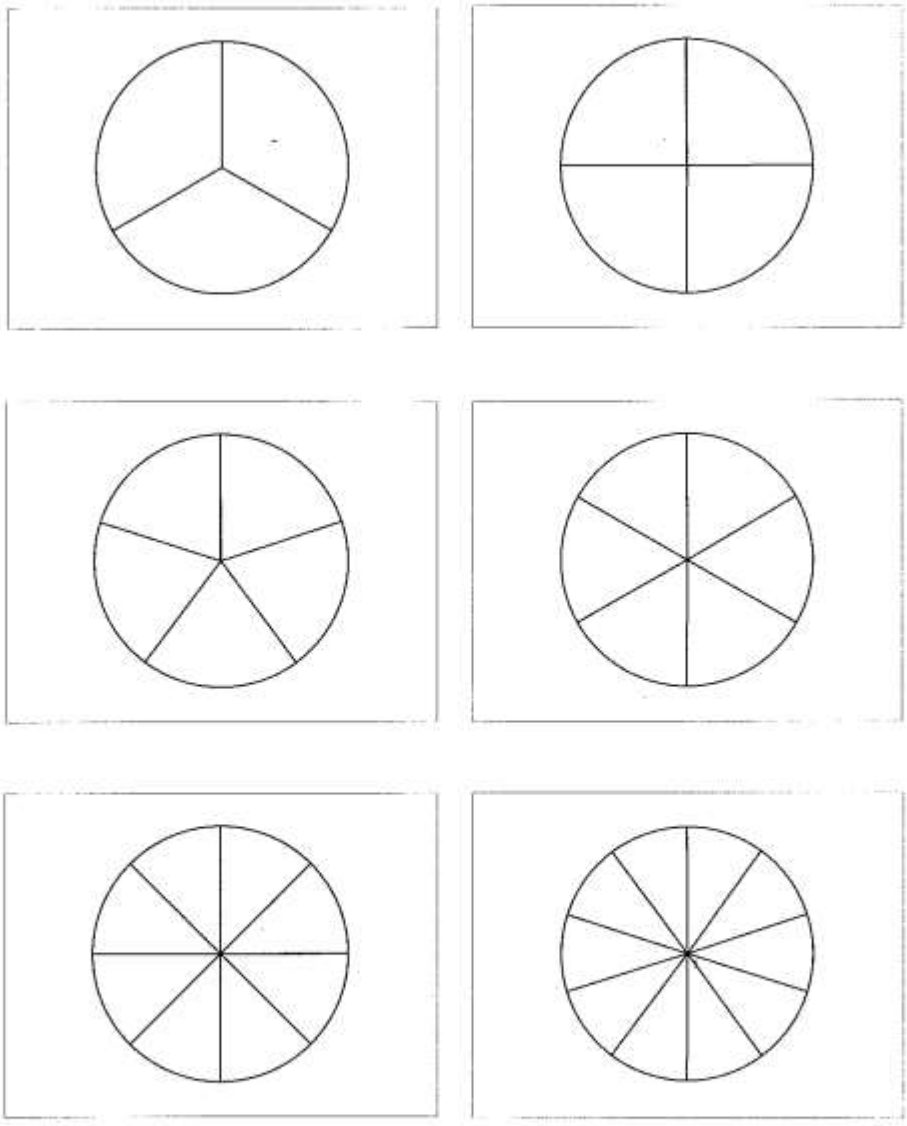

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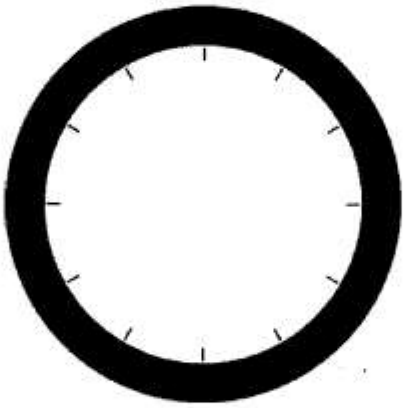

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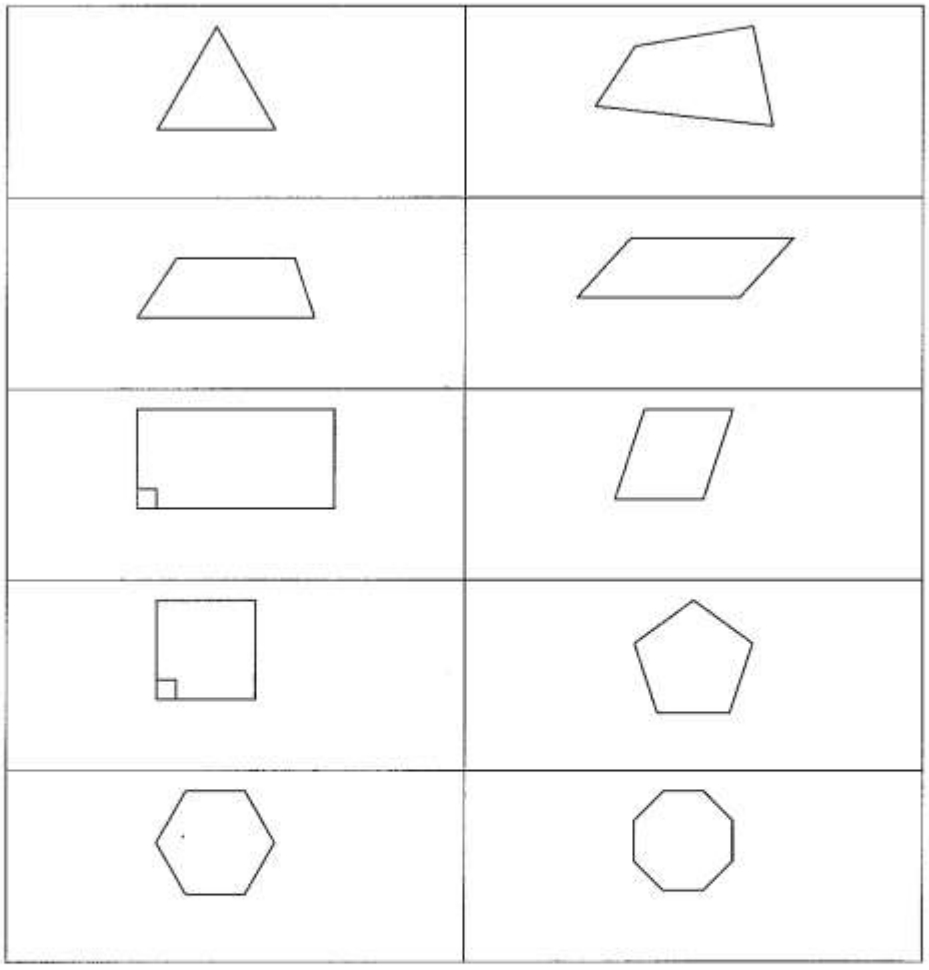

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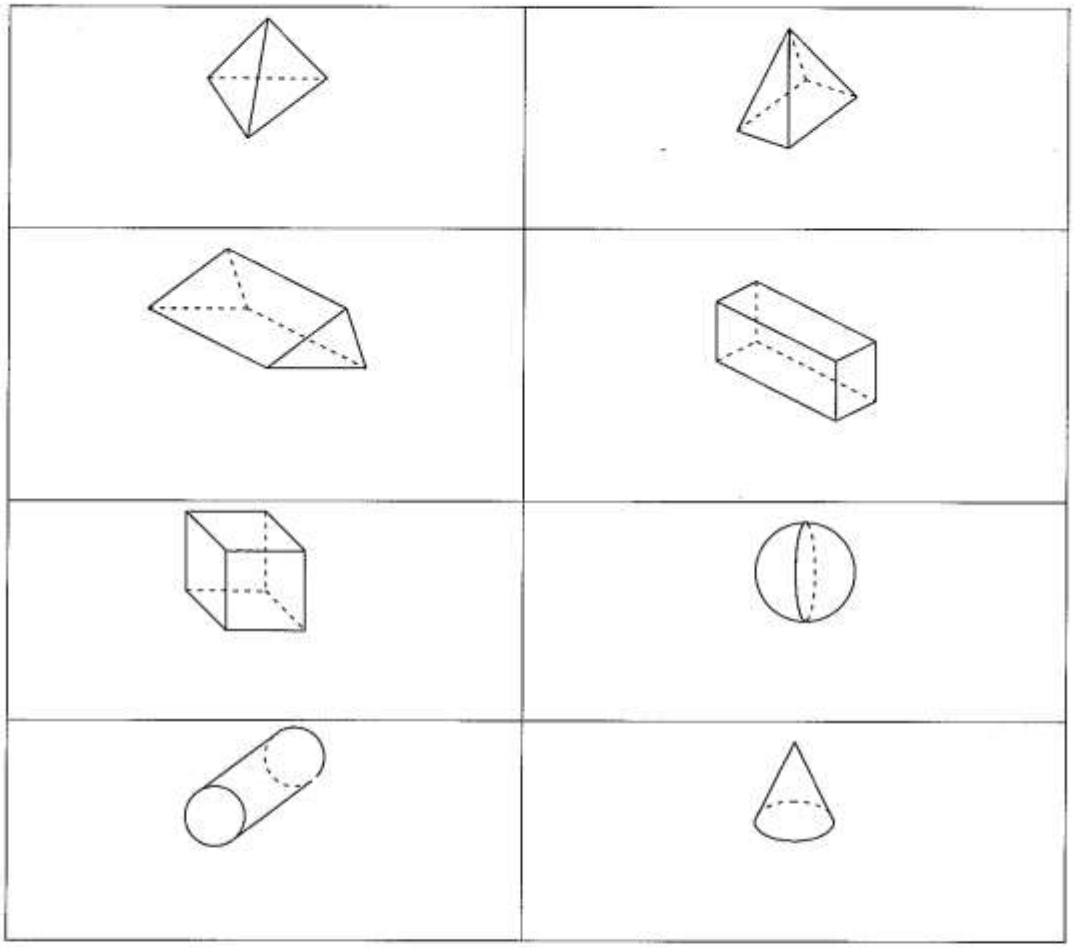


Allowable Memory Aid

Allowable Memory Aid

WORD BANK

HEXAGON
OCTAGON
PARALLELOGRAM
PENTAGON
QUADRILATERAL
RECTANGLE
RHOMBUS
SQUARE
TRAPEZOID
TRIANGLE

CONE
CUBE
CYLINDER
RECTANGULAR PRISM
RECTANGULAR PYRAMID
SPHERE
TRIANGULAR PRISM
TRIANGULAR PYRAMID

Allowable Memory Aid

DMSCB	**D**oes **M**cDonalds **S**ell **C**heese **B**urgers?
PEMDAS	**P**lease **E**xcuse **M**y **D**ear **A**unt **S**ally
BEDMAS	**B**ig **E**lephants **D**estroy **M**ice **A**nd **S**nails
PEDMAS	**P**ink **E**lephants **D**estroy **M**ice **A**nd **S**nails
KHD**m**dcm	**K**ing **H**enry **D**ied **M**onday **D**rinking **C**hocolate **M**ilk

Accommodation 48

MATHEMATICS - NON-ALLOWABLE

Time

a.m. – between midnight and noon
p.m. – between noon and midnight

midnight – 12:00 a.m.
noon – 12:00 p.m.

1 minute	= 60 seconds	1 year	= 365 days
1 hour	= 60 minutes	1 leap year	= 366 days
1 day	= 24 hours	1 decade	= 10 years
1 week	= 7 days	1 century	= 100 years

1 year = 12 months

1 year = 52 weeks + 1 day

Days in Each Month

1	January	31	7	July	31
2	February	28	8	August	31
3	March	31	9	September	30
4	April	30	10	October	31
5	May	31	11	November	30
6	June	30	12	December	31

Season	Begins	Goes through	Ends
Spring	Mar. 20, 21	April – May	June 21,22
Summer	June 21, 22	July – August	Sept. 21, 22, 23
Fall	Sept. 21, 22, 23	Oct. – Nov.	Dec. 21, 22
Winter	Dec. 21, 22	Jan. – Feb.	Mar. 20, 21

NON-ALLOWABLE

Number Words

1 one	11 eleven	20 twenty
2 two	12 twelve	30 thirty
3 three	13 thirteen	40 forty
4 four	14 fourteen	50 fifty
5 five	15 fifteen	60 sixty
6 six	16 sixteen	70 seventy
7 seven	17 seventeen	80 eighty
8 eight	18 eighteen	90 ninety
9 nine	19 nineteen	100 one hundred
10 ten		1000 one thousand
		1,000,000 one million

21	twenty-one
31	thirty-one
46	forty-six
58	fifty-eight
67	sixty-seven
73	seventy-three
85	eighty-five
94	ninety-four

NON-ALLOWABLE

Addition Chart

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

NON-ALLOWABLE

Multiplication Chart

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144
13	13	26	39	52	65	78	91	104	117	130	143	156
14	14	28	42	56	70	84	98	112	126	140	154	168

NOT AVAILABLE

Miscellaneous

Odd/Even
Odd numbers: 1, 3, 5, 7, 9, ...
Even numbers: 0, 2, 4, 6, 8, ...

Counts
1 dozen = 12 items

Less Than/Greater Than
15 < 50 50 > 15
little < big big > little

NON-ALLOWABLE

ORDER OF OPERATION/SYMBOLS

Do operations within parentheses.	( )
Do powers (exponents) and roots.	$^2\sqrt{}$
Do multiplication and division in order from left to right.	x ÷
Do addition and subtraction in order from left to right.	+ –

NON-ALLOWABLE

OPERATIONS

Parentheses	( )
Powers (exponents)	^{2}
Roots	$\sqrt{}$
Multiplication	x
Division	÷
Addition	+
Subtraction	–

NON-ALLOWABLE

COMPARISONS

<	Is smaller than
>	Is greater than
=	Is equal to
≈	Approximate
≤	Is smaller or equal to
≥	Is greater or equal to

NON-AVAILABLE

FRACTIONS

$\frac{3}{5}$ - numerator — the number above the line in a fraction

5 - denominator — the number below the line in a fraction

NON-ALLOWABLE

OPERATIONS WITH FRACTIONS

To ***add*** or ***subtract*** different fractions, first obtain a common denominator:

$$\frac{1}{3}+\frac{2}{5}=\frac{5}{15}+\frac{6}{15}=\frac{11}{15}$$

To ***multiply***, multiply the numerators and multiply the denominators:

$$\frac{1}{3}\times\frac{2}{5}=\frac{1\times 2}{3\times 5}=\frac{2}{15}$$

To ***divide***, multiply the first with the reciprocal of the second fraction:

$$\frac{2}{3}\div\frac{1}{6}=\frac{2}{3}\times\frac{6}{1}=\frac{12}{3}=4$$

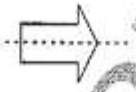
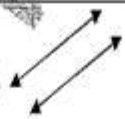
NON-REPRODUCIBLE

FRACTIONS, DECIMALS, PERCENTS – common equivalents

1	1.0	100%
$\frac{1}{2}$	0.5	50%
$\frac{1}{3}$	$0.\overline{3}$	$33.\overline{3}\%$
$\frac{1}{4}$	0.25	25%
$\frac{1}{5}$	0.2	20%
$\frac{1}{6}$	$0.1\overline{6}$	$16.\overline{6}\%$
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{9}$	$0.\overline{1}$	$11.\overline{1}\%$
$\frac{1}{10}$	0.1	10%
$\frac{1}{12}$	$0.08\overline{3}$	$8.\overline{3}\%$
$\frac{2}{3}$	$0.\overline{6}$	$66.\overline{6}\%$
$\frac{3}{4}$	0.75	75%

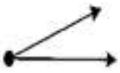
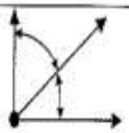
NON-AVAILABLE

LINES

				
LINE	RAY	LINE OF SYMMETRY	PARALLEL LINES	LINE SEGMENT

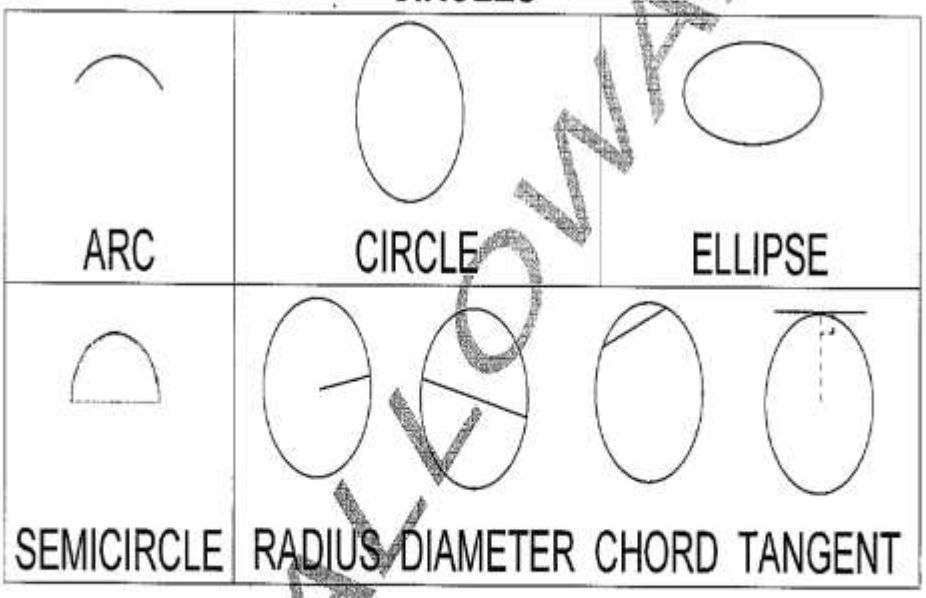
NON-ALLOWABLE

ANGLES

 ANGLE / VERTEX	0 DEGREE	90° RIGHT ANGLE
ACUTE less than 90°	STRAIGHT 180°	 COMPLEMENTARY add up to 90°
OBTUSE greater than 90° less than 180°	COMPLETE 360°	SUPPLEMENTARY add up to 180°

NON-ALLOWABLE

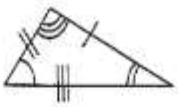
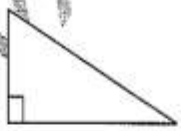
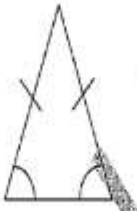
CIRCLES



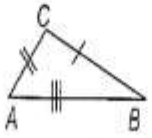
NON-ALLOWABLE

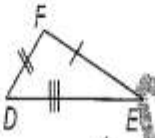
NOT ALLOWABLE

TRIANGLES

 SCALENE TRIANGLE	 RIGHT TRIANGLE
 ISOSCELES TRIANGLE	OBTUSE TRIANGLE
EQUILATERAL TRIANGLE	ACUTE TRIANGLE

CONGRUENT TRIANGLES

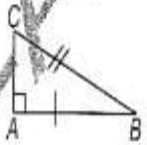


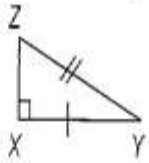


$\triangle ABC \cong \triangle DEF$

4 CONGRUENCY CASES

1. side, side, side SSS
2. side, angle, side SAS
3. angle, side, angle ASA
4. hypotenuse, side HyS

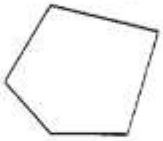
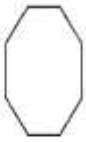




$\triangle ABC \cong \triangle XYZ$

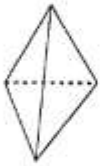
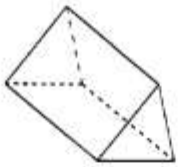
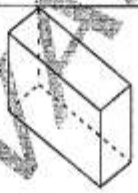
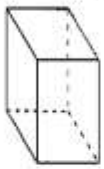
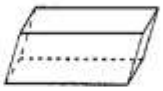
NON-REVIEWABLE

POLYGONS

 POLYGON	QUADRILATERAL
TRAPEZOID	PARALLELOGRAM
RECTANGLE	RHOMBUS
SQUARE	REGULAR PENTAGON
REGULAR HEXAGON	 REGULAR OCTAGON

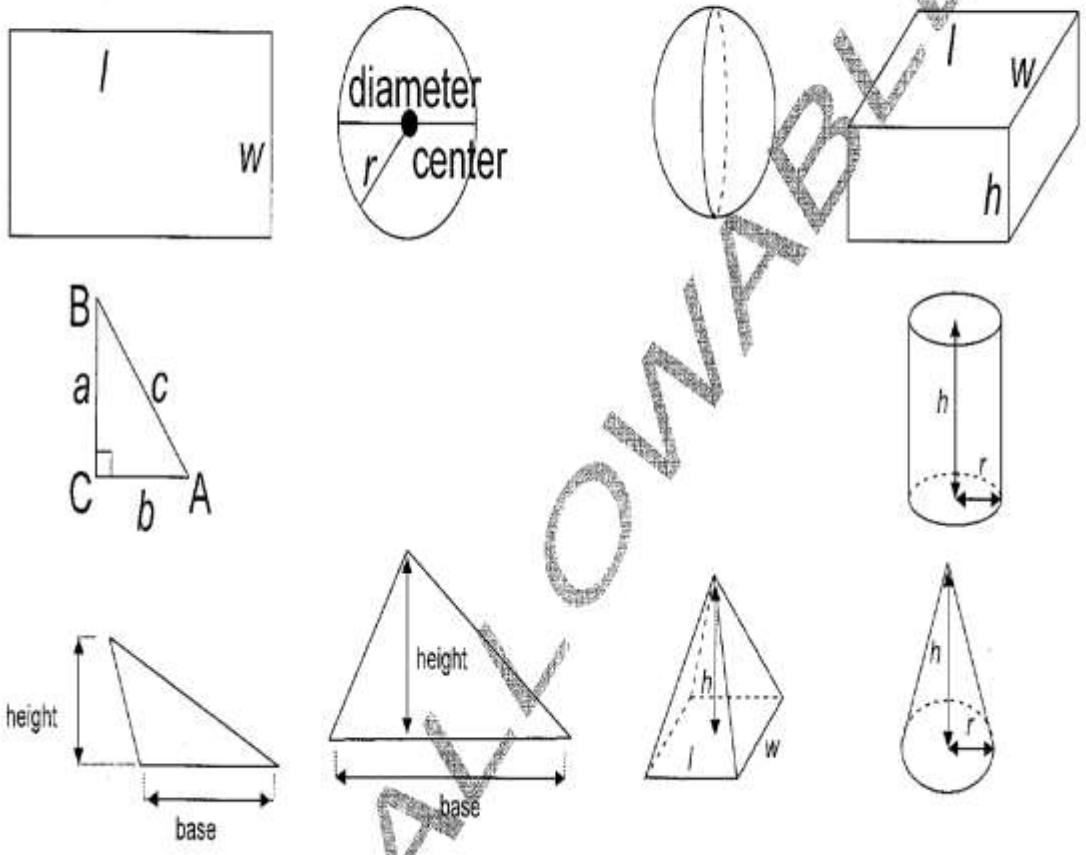
NON-ALLOWABLE

SOLIDS

 TRIANGULAR PYRAMID	RECTANGULAR PYRAMID
 TRIANGULAR PRISM	 RECTANGULAR PRISM
 CUBE	 PARALLELEPIPED
CYLINDER	CONE
SPHERE	ELLIPSOID

NOT ALLOWABLE

GEOMETRIC LABELS



NON-ALLOWABLE

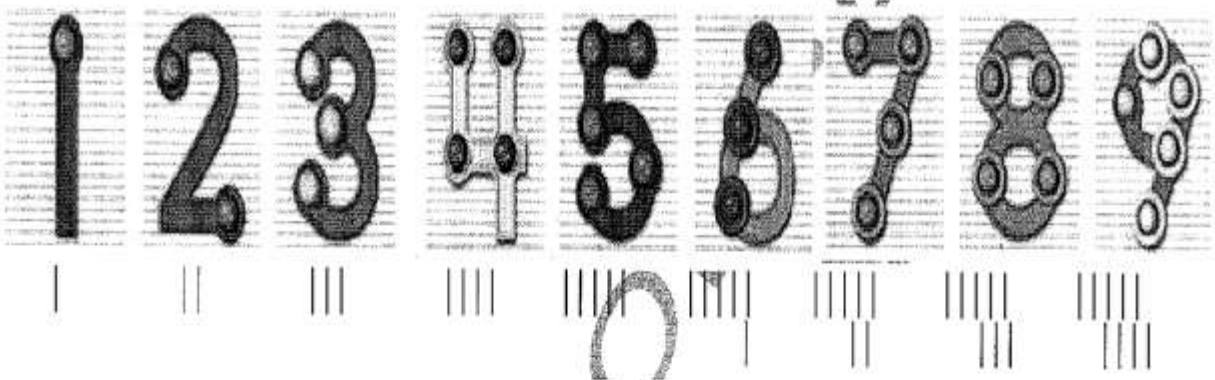
MULTIPLICATION TABLES

1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5	6 × 1 = 6
1 × 2 = 2	2 × 2 = 4	3 × 2 = 6	4 × 2 = 8	5 × 2 = 10	6 × 2 = 12
1 × 3 = 3	2 × 3 = 6	3 × 3 = 9	4 × 3 = 12	5 × 3 = 15	6 × 3 = 18
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20	6 × 4 = 24
1 × 5 = 5	2 × 5 = 10	3 × 5 = 15	4 × 5 = 20	5 × 5 = 25	6 × 5 = 30
1 × 6 = 6	2 × 6 = 12	3 × 6 = 18	4 × 6 = 24	5 × 6 = 30	6 × 6 = 36
1 × 7 = 7	2 × 7 = 14	3 × 7 = 21	4 × 7 = 28	5 × 7 = 35	6 × 7 = 42
1 × 8 = 8	2 × 8 = 16	3 × 8 = 24	4 × 8 = 32	5 × 8 = 40	6 × 8 = 48
1 × 9 = 9	2 × 9 = 18	3 × 9 = 27	4 × 9 = 36	5 × 9 = 45	6 × 9 = 54
1 × 10 = 10	2 × 10 = 20	3 × 10 = 30	4 × 10 = 40	5 × 10 = 50	6 × 10 = 60
1 × 11 = 11	2 × 11 = 22	3 × 11 = 33	4 × 11 = 44	5 × 11 = 55	6 × 11 = 66
1 × 12 = 12	2 × 12 = 24	3 × 12 = 36	4 × 12 = 48	5 × 12 = 60	6 × 12 = 72

7 × 1 = 7	8 × 1 = 8	9 × 1 = 9	10 × 1 = 10	11 × 1 = 11	12 × 1 = 12
7 × 2 = 14	8 × 2 = 16	9 × 2 = 18	10 × 2 = 20	11 × 2 = 22	12 × 2 = 24
7 × 3 = 21	8 × 3 = 24	9 × 3 = 27	10 × 3 = 30	11 × 3 = 33	12 × 3 = 36
7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40	11 × 4 = 44	12 × 4 = 48
7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	10 × 5 = 50	11 × 5 = 55	12 × 5 = 60
7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60	11 × 6 = 66	12 × 6 = 72
7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70	11 × 7 = 77	12 × 7 = 84
7 × 8 = 56	8 × 8 = 64	9 × 8 = 72	10 × 8 = 80	11 × 8 = 88	12 × 8 = 96
7 × 9 = 63	8 × 9 = 72	9 × 9 = 81	10 × 9 = 90	11 × 9 = 99	12 × 9 = 108
7 × 10 = 70	8 × 10 = 80	9 × 10 = 90	10 × 10 = 100	11 × 10 = 110	12 × 10 = 120
7 × 11 = 77	8 × 11 = 88	9 × 11 = 99	10 × 11 = 110	11 × 11 = 121	12 × 11 = 132
7 × 12 = 84	8 × 12 = 96	9 × 12 = 108	10 × 12 = 120	11 × 12 = 132	12 × 12 = 144

TOTALLOWABLE

TOUCH-POINT NUMBERS



adapted from https://www.touchmath.com/index.cfm?fuseaction=products.welcome&Cid=2&Pid=109

NON-ALLOWABLE

PARTS OF A DOLLAR

Dollar

100¢ = $1.00

1 dollar

$1.00

↑

75¢

↑

50¢

↑

25¢

NON-LOWABLE

COIN REPRESENTATIONS

Penny
1¢ = $0.01
1 cent

Nickel
5¢ = $0.05
5 cents

Dime
10¢ = $0.10
10 cents

Quarter
25¢ = $0.25
25 cents

NON-ALLOWABLE

PROPERTIES OF ADDITION AND MULTIPLICATION

Commutative property
of addition

$$a + b = b + a$$

Commutative property
of multiplication

$$ab = ba$$

Associative property
of addition

$$a + (b + c) = (a + b) + c$$

Associative property
of multiplication

$$a(bc) = (ab)c$$

Distributive property
of multiplication over addition

$$a(b + c) = ab + ac$$

Distributive property
of multiplication over subtraction

$$a(b - c) = ab - ac$$

NON-ALIENABLE

METRIC SYSTEM

kilo	hecto	deca		deci	centi	milli

NON-ALLOWABLE

METRIC SYSTEM CONVERSIONS

1000	100	10	1	0.1	0.01	0.001
kilo	hecto	deca		deci	centi	milli
km	hm	dam	m	dm	cm	mm
kg	hg	dag	g	dg	cg	mg
kl	hl	dal	l	dl	cl	ml

NON-ALLOWABLE

COMMON UNITS used with the International System

UNITS OF MEAS.	ABBREV.	RELATION
meter	m	length
hectare	ha	area
ton	t	mass
kilogram	kg	mass
nautical mile	M	distance (navigation)
knot	kn	speed (navigation)
liter	L	volume or Capacity
second	s	time
hertz	Hz	frequency
candela	cd	luminous intensity
degree Celsius	°C	temperature
kelvin	K	thermodynamic temperature
pascal	Pa	pressure, stress
joule	J	energy, work
newton	N	force
watt	W	power, radiant flux
ampere	A	electric current
volt	V	electric potential
ohm	Ω	electric resistance
coulomb	C	electric charge

NOT AVAILABLE

MEASUREMENT CONVERSIONS

LENGTH / AREA				WEIGHT / CAPACITY			
to go from		to	multiply by	to go from		to	multiply by
cm	→	in	0.3937	g	→	oz	0.0353
in	→	cm	2.54	oz	→	g	28.35
m	→	ft	3.2808	kg	→	lbs	2.2046
km	→	mi	0.6214	t	→	T	1.1023
mi	→	km	1.609	T	→	t	0.9072
m^2	→	ft^2	10.76	ml	→	fl oz	0.0338
ft^2	→	m^2	0.0929	fl oz	→	ml	29.575
km^2	→	mi^2	0.3861	L	→	US gal	0.2642
mi^2	→	km^2	2.59	US gal	→	L	3.785

NON-ALLOWABLE

METRIC SYSTEM

1 m^2	= 10,000 cm^2
1 hectare (ha)	= 10,000 m^2
1 km^2	= 100 ha
1 metric ton (t)	= 1,000 kg

NON-ALLOWABLE

ENGLISH SYSTEM

Length

1 foot (ft)	= 12 inches (in)	= 1'	= 12"
1 yard (yd)	= 3 feet	= 36 inches	
1 mile (mi)	= 1,760 yards	= 5,280 feet	

Liquid

1 tablespoon (T)	= 3 teaspoons (t)		
1 cup (c)	= 16 T	= 8 fluid ounces (fl oz)	
1 pint (pt)	= 2 c		
1 quart (qt)	= 2 pt	= 4 c	= 32 fl oz
1 gallon (gal)	= 4 qt		

Weight

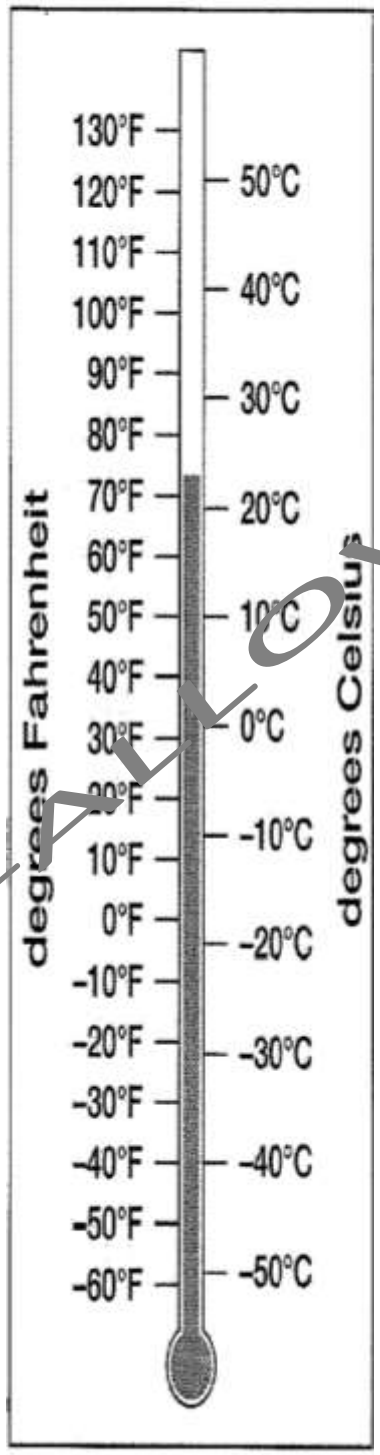
1 pound (lb)	= 16 ounces (oz)
1 ton (t)	= 2000 pounds

Area

1 ft^2	= 144 in^2
1 yd^2	= 9 ft^2
1 acre	= 4,840 yd^2

NON-FLOWABLE

TEMPERATURE



NON-ALLOWABLE

TEMPERATURE CONVERSIONS

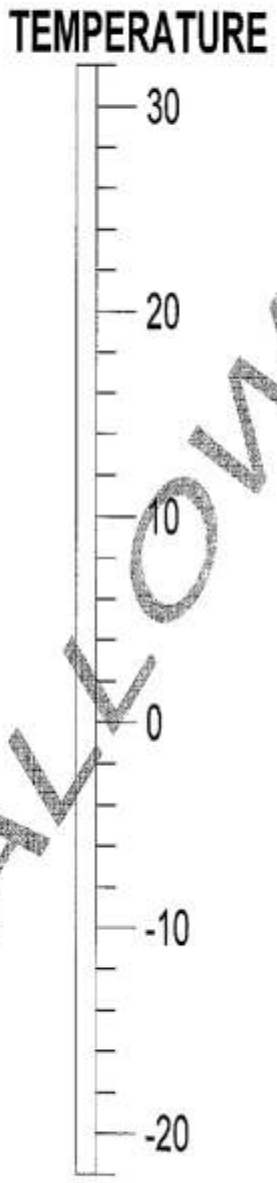
°C → °F

n × 1.8; add 32

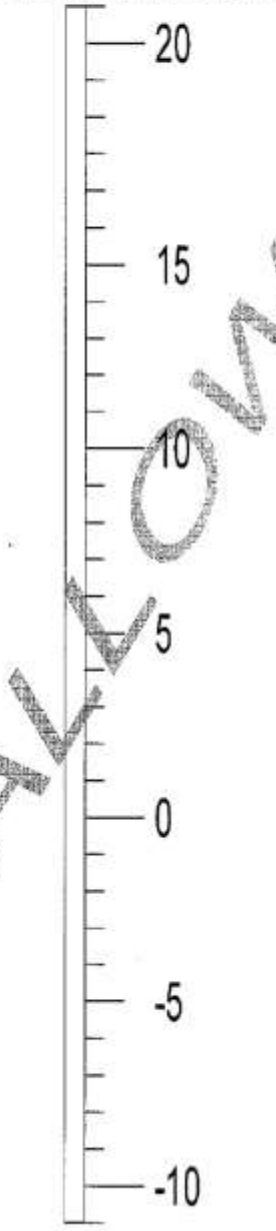
°F → °C

n – 32; multiply by 0.5555

NON-ALLOWABLE



NON-ALLOWABLE



NON-ALLOWABLE

PLACE VALUE

hundred millions ten millions millions
hundred thousands ten thousands thousands
hundreds tens ones
tenths hundredths thousandths

NON-REVIEWABLE

COMPASS

The sun rises in the east
and sets in the west.

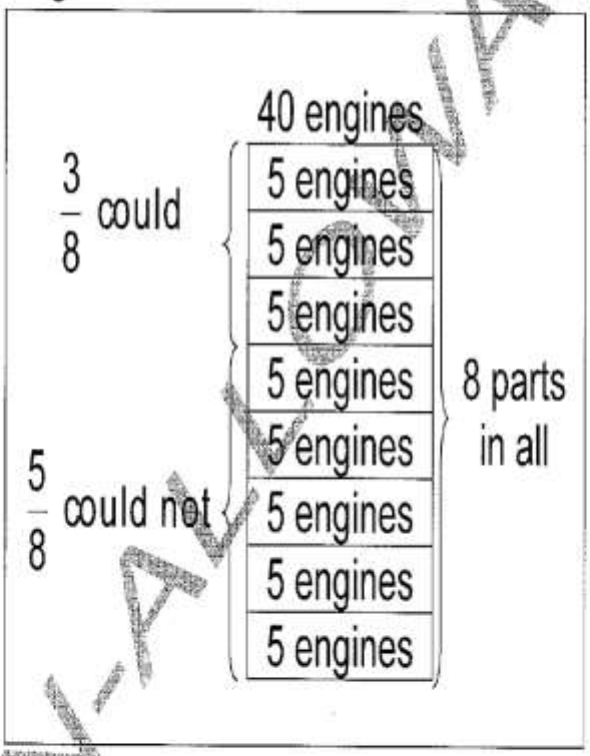
NON-ALLOWABLE

HALF OF A NUMBER

To find half of a number, divide by two.

NON-ALLOWABLE

$\frac{3}{8}$ OF THE 40 ENGINES COULD



NON-AVAILABLE

FIND THE MISSING NUMBERS

(Word Problem Thinking Patterns: Sketch the pattern. Record the information.)

SOME, SOME MORE	Some	← If missing, subtract.
	+ Some more	← If missing, subtract.
	Total	← If missing, add.
SOME WENT AWAY	Some	← If missing, add.
	- Some went away	← If missing, subtract.
	What's left	← If missing, subtract.
LARGER, SMALLER, DIFFERENCE	Larger	← If missing, add.
	- Smaller	← If missing, subtract.
	Difference	← If missing, subtract.
LATER, EARLIER, DIFFERENCE	Later	← If missing, add.
	- Earlier	← If missing, subtract.
	Difference	← If missing, subtract.
EQUAL GROUPS	Number in each group	← If missing, divide.
	× Number of groups	← If missing, divide.
	How many	← If missing, multiply.

NON-ALLOWABLE

PRIME NUMBERS

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

NOT AVAILABLE

DIVISIBILITY RULES

A whole number is divisible by...

2	if the last digit is 0,2,4,6,8.	6	if the number is divisible by both 2 and 3.
3	if the sum of the digits is divisible by 3.	9	if the sum of the digits is divisible by 9.
5	if the last digit is 5 or 0.	10	if the last digit is 0.

NON-ALLOWABLE

SYMBOLS

Addition	+	Equal	=	Percent	%
Angle	∠	Greater than	>	Perpendicular	⊥
Arc	⌒	Less than	<	Pi	π
Decimal point	.	Line segment	—	Ray	→
Degree	°	Multiplication	×	Right Angle	⌞
Division	÷	Number	#	Set	{ }
Dollar	$	Parallel	∥	Subtraction	−

NON-ALLOWABLE

NUMBERS

Prime Number:	A whole number which has only two factors, itself and 1.	Examples: 2, 3, 7, 11, 13, 17.
Common Factor:	A number that is a factor of two or more numbers.	Examples: 1, 2, and 4 are common factors of 12 and 16.
Greatest Common Factor:	The greatest number that is a factor of two or more numbers	Example: 4 is the greatest common factor of 12 and 16.
Least Common Multiple:	The smallest number that is a multiple of two or more numbers.	Example: 12 is the least common multiple of 2, 3, 4, and 6.

NON-ALLOWABLE

METRIC SYSTEM

Length		
	1 centimeter (cm)	= 10 millimeters (mm)
	1 decimeter (dm)	= 100 millimeters
	1 decimeter	= 10 centimeters
	1 meter (m)	= 1000 millimeters
	1 meter	= 100 centimeters
	1 meter	= 10 decimeters
	1 decameter (dkm)	= 10 meters
	1 kilometer (km)	= 1000 meters
Liquid		
	1 liter (L)	= 1000 milliliters (mL)
Weight		
	1 gram (g)	= 1000 milligrams (mg)
	1 kilogram (kg)	= 1000 grams

NOT AVAILABLE

ROMAN NUMERALS

I =	1
V =	5
X =	10
L =	50
C =	100
D =	500
M =	1000

NON-AVAILABLE

CONVERSIONS

Small to Large	Multiply
Large to Small	Divide

NON-ALLOWABLE

COMMON SQUARES AND SQUARE ROOTS

n	n^2	$\sqrt{n}$	n	n^2	$\sqrt{n}$
1	1	1	15	225	3.873
2	4	1.414			
3	9	1.732	20	400	4.472
4	16	2			
5	25	2.236	25	625	5
6	36	2.449			
7	49	2.646	100	10000	10
8	64	2.828			
9	81	3	1/2	1/4	0.707
10	100	3.162	1/4	1/16	1/2
11	121	3.317			
12	144	3.464			

NONALLOWABLE

PROBLEM SOLVING STEPS

1	UNDERSTAND & EXPLORE	First things first: find out what the real problem is.
2	GUESS & CHECK	Make a reasonable guess and check it out; try again if necessary.
3	SOLVE THE PROBLEM	Sort out all the information, draw a picture, graph or table, and write it out in math. Sometimes it may help to work backward!
4	CHECK YOUR ANSWER	Think logically... does your solution make sense? Try it out if you can.

NON-ALLOWABLE

EXPANDING

$a(b+c) = ab + ac$

$(a+b)^2 = a^2 + 2ab + b^2$

$(a-b)^2 = a^2 - 2ab + b^2$

$(a+b)(c+d) = ac + ad + bc + bd$

$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$

$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$

FACTORING

$a^2 - b^2 = (a+b)(a-b)$

$a^2 + 2ab + b^2 = (a+b)^2$

$a^3 + b^3 = (a+b)(a^2-ab+b^2)$

$a^3b - ab = ab(a^2-1) = ab(a+1)(a-1)$

$a^2 - 2ab + b^2 = (a-b)^2$

$a^3 - b^3 = (a-b)(a^2+ab+b^2)$

NON-ALLOWABLE

QUADRATIC FORMULA

The solution for a quadratic equation

$ax^2+bx+c=0$

is given by the

quadratic formula:

$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

NON-ALLOWABLE

PROPERTIES OF EXPONENTS

If $a, b \in R$, $a, b \geq 0$, and p, q, r, s are $\in Q$, then:

1	$a^r a^s = a^{r+s}$	5	$\left(\frac{a}{b}\right)^r = \frac{a^r}{b^r} \; (b \neq 0)$
2	$\frac{a^r}{a^s} = a^{r+s}$	6	$a^0 = 1 \; (a \neq 0)$
3	$(a^r)^s = a^{rs}$	7	$a^{-r} = \frac{1}{a^r} \; (a \neq 0)$
4	$(ab)^r = a^r b^r$	8	$a^{\frac{r}{s}} = \sqrt[s]{a^r} \quad a^{\frac{1}{2}} = \sqrt{a} \quad a^{\frac{1}{3}} = \sqrt[3]{a}$

$\left.\begin{array}{l} 1 \\ 2 \end{array}\right\} \frac{a^p a^q}{a^r} = a^{p+q-r}$

NON-ALLOWABLE

PROPERTIES OF LOGARITHMS

$\log(xy) = \log x + \log y$	$\log\left(\frac{x}{y}\right) = \log x - \log y$
$\log y^r = r \log x$	
$\log x = n \leftrightarrow x = 10^n$ (common log)	$\pi \approx 3.14159265$
$\log_a x = n \leftrightarrow x = a^n$ (log to the base a)	$e \approx 2.71828183$
$\ln x - n \leftrightarrow x = e^n$ (natural log)	

NON-ALLOWABLE

Mississippi Testing Accommodations Manual

Revised (~~October~~ February 201~~6~~7)

Mississippi Statewide Assessment System

Office of Student Assessment

Mississippi Department of Education

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I. Overview

The list of accommodations shows the numeric codes to be entered in the designated areas on student answer documents, test booklets, or online system**. The accommodations that are allowable on each of the statewide tests vary.** A list of allowable and non-allowable accommodations for each test is located in this document.

The **General Accessibility Features** are allowable and may be used by all students on each of the statewide tests. These ~~accommodations~~ accessibility features do not have to be entered online or on the student's answer documents. .

All eligible students may utilize appropriate assessment accommodations when participating in the statewide assessments. Any accommodation utilized for the assessment of students must be:

- based on the learning needs of the individual student through decisions made and officially documented on the **IEP/504/Lanugage Service (LS) Plan** prior to the test administration, or
- based on the student's **temporary physical disability**, and
- used during the student's **routine** classroom instruction, to include classroom assessment.

All English Learner students may utilize appropriate assessment accommodations when participating in the statewide assessments. Any accommodation utilized for the assessment of individual students must be:

- based upon the individual student's learning needs,
- based upon decisions made prior to the test administration, and
- used during the student's routine classroom instruction, to include classroom assessment.

The manual also contains other guides and resources, such as questions, recommendations, and checklists to guide you in determining appropriate accommodations.

II. Accommodation Request Form

Use this form for requesting accommodations that are *not* already documented as allowable (A94 8) or non-allowable (A99) in the current edition of the Mississippi Testing Accommodations Manual.

District Name:_____ District Code: ____

School Name:_____ School Code: ____

Name and Title of Requestor: _____

Accommodation(s) are requested for use on the following assessment(s): (Check all that apply.)

Algebra I: MAP _____	MST2: _____
Biology I: _____	MAP (G3-8): ELA_____ Math _____
English II: MAP_____ SATP2 _____	ELPT: _____
U. S. History: _____	MKAS^2: K-Readiness_____ 3rd Gr. Reading _____

Student Name: _____ ***or*** **Group Name**: _____
(If a group, fill in the primary teacher's name for the group and attach a list of the students and grade levels.)

Grade: _____ **Test Administration Date(s)**:_____,_____,_____,_____, _____

A. Please list the accommodation number(s) requested. If #99, please explain in detail.

B. Why does the student need this (these) accommodation(s)? *(Attach supporting evidence)*

C. Does this student routinely receive this accommodation in classroom instruction?
_____**Yes** _____**No**

D. Is this student receiving support/services through Special Education or Section 504 of the Rehabilitation Act of 1973? _____**Yes (*circle one*:** *IDEA/IEP* ***or*** *Section 504 Plan)* _____**No**

If yes on D, attach a copy of the Present Levels of Academic Achievement and Functional Performance // Present Levels of Performance page(s) ***and*** the Statewide Test Accommodations // Supplementary Aids and Services page(s) from the student's Individualized Education Program (IEP) or Section 504 Plan.

District Test Coordinator's Signature:_____ **Date:** _____

Please submit this form and supporting evidence at least **four (4) weeks prior to the test date** for which it is requested to the Office of Student Assessment~~,~~ ~~Attn: Dr. Albert Carter,~~ P. O. Box 771, Jackson, Mississippi 39205~~.~~ ***or*** ~~e-mail to acarter@mdek12.org~~.

MDE USE ONLY

_____Approved

_____Denied Signature: _____

Reason for Denial:

Form ARF (Rev. 07/2015)

III. Important Notes

In the Testing Accommodations Chart (p. 17), specific accommodations have a tag reading, "REFER TO NOTE——". The notes are listed below by number.

For all state assessments, a test administrator and a proctor must be present during the entire test administration for all students tested.

NOTE 1:

A. ACT-Approved: The use of ACT-Approved accommodations must be requested from ACT via official request forms. These are determined by ACT in compliance with the Americans with Disabilities Act (ADA) and the Diagnostic and Statistical Manual of Mental Disorders, 4th or 5th Edition. ACT-Approved Accommodations that result in ACT scores are fully reportable to colleges, scholarship agencies, the NCAA and other entities in addition to being used for state testing purposes.

B. Locally Approved: These are determined by the Testing Accommodations Coordinator (TAC) and the Testing Coordinator (TC) following specific ACT policy.

C. Non-college Reportable: These are determined by the Testing Accommodations Coordinator (TAC) following state or district guidelines. The use of a State-Allowed accommodation, after its use has been officially denied by ACT as an ACT-Approved accommodation, will render the student's score as not reportable to colleges, scholarship agencies, the NCAA and other entities; rather, they can only be used for state purposes.

NOTE 2: It should be noted that some accommodations used routinely in the classroom may not be allowable for statewide tests. The test results of students who use non-allowable accommodations are invalid and must be excluded from summary statistics. Any student with an invalid score is considered not tested. Allowable accommodations may change the method in which test items are presented and the method of the student's response to test items but will not interfere with what the test purports to measure. An unallowable accommodation provides an unfair advantage to the student and interferes with what the test purports to measure.

NOTE 3: Approval must be granted by the Office of Student Assessment (OSA) **four (4) weeks prior** to the use of accommodations that are not included in this list. Please complete the Accommodation Request Form and submit it to OSA. It is the responsibility of the OSA to determine whether the use of such accommodation(s) will affect the validity of the assessment.

NOTE 4:

A. Accommodations **23**, **24** and **25** relate to administering the test over several sessions and **no longer require approval from the Office of Student Assessment**. However, the entire assessment must be completed within the testing window. If an extension that exceeds or goes beyond the day the test administration is scheduled, the procedure must be documented and on file with the District Test Coordinator. If the student is testing over

several days, he/she is not allowed to change responses to questions answered during the previous testing sessions or preview questions that will be administered in a future session.

B. Timing codes are assigned by **ACT**.

C. **LAS Links** and SATP2 are untimed assessments.

D. For the **Kindergarten Readiness Assessment**, clicking [Resume Later] allows students to resume their test at a later time, starting on the same question number at which the test was paused but a different item. The STAR monitor password is required. Note: A different password can be set for each STAR class; be sure to enter the password for the class in which the student is testing. The test can be paused and resumed as many times as needed, but it can only be resumed within 8 days of when it was originally started. Closing the test window during a test will also allow a student to resume from where he or she left off, although this is not recommended.

If the student clicks [Stop Test] and the monitor password is entered, the test is over and the student will need to begin a new test. The incomplete test will not be scored.

For the **Kindergarten Readiness Assessment**, all students will have 90 seconds to answer each item. Extended time is currently unavailable for this assessment.

E. For the **Third Grade Reading Summative -Alternate Assessment, ~~MKAS2 Make-up~~**, students with disabilities (SWDs) and English learners (ELs) can click [Resume Later] to allow students to resume their test at a later time, starting on the same question number at which the test was paused but a different item. The STAR monitor password is required. Note: A different password can be set for each STAR class; be sure to enter the password for the class in which the student is testing. The test can be paused and resumed as many times as needed, but it can only be resumed within 8 days of when it was originally started. Closing the test window during a test will also allow a student to resume from where he or she left off, although this is not recommended.

If the student clicks [Stop Test] and the monitor password is entered, the test is over and the student will need to begin a new test. The incomplete test will not be scored.

F. For the **Third Grade Reading Summative–Alternate Assessment**, the General Education students, English learners, and students with disabilities will have a maximum of 270 seconds to answer each item.

~~F.~~

G. For the **Third Grade Reading Summative Alternate Assessment**, students with disabilities (SWDs) and English learners (ELs) can have a maximum of 20 minutes to answer each question; however, the test must be completed by 3:00 p.m. or the end of the student's school day, whichever occurs first. The extended time accommodation must be listed in the student's IEP or Section 504 Plan and specified for this assessment area.

H. Students with a diagnosis of dyslexia who were evaluated by a licensed psychologist, psychometrist, or speech language pathologist (HB 1031, July 2012) can receive a maximum of 20 minutes to answer each question; however, the test must be completed by 3:00 p.m. or the

end of the student's school day, whichever occurs first. Students must have a documented diagnosis of dyslexia on file in accordance with Miss. Code 37-173-1 et seq.

~~G.~~

I. On the MAP, MST2, and SATP2 tests, Accommodations 24 and 25 are available to English Learners.

~~H.~~J. Third-Grade Reading Summative Assessment and the ~~MKAS2 Make up~~Alternate Assessment: Students with a diagnosis of dyslexia who were evaluated by a licensed psychologist, psychometrist, or speech language pathologist (HB 1031, July 2012) can receive extended time to complete the Mississippi state assessment. The test must be completed by 3:00 p.m. or the end of the student's school day, whichever occurs first. Students must have a documented diagnosis of dyslexia on file in accordance with Miss. Code 37-173-1 et seq.

NOTE 5:

A. For the **Kindergarten Readiness Assessment**, all students can test at a specific time of day if necessary.

B. For the **Third Grade Reading Summative and Alternate Assessment**, students with disabilities (SWDs) and English learners (ELs) can test at a specific time of day, if this accommodation (#**22**) is listed in the student's IEP or Section 504 Plan and specified for this assessment area.

~~NOTE 6:~~

~~For the **Kindergarten Readiness Assessment**, if, in the Test Administrator's professional judgment, a student is unable to continue the assessment, the Test Administrator can stop the test. When the student is prepared to continue the test, the assessment must be resumed on the same day from the point at which it was stopped.~~

~~For the **Third Grade Reading Summative Assessment**, if, in the Test Administrator's professional judgment, a student with a disability (SWD) or an English learner (EL) is unable to continue the assessment, the Test Administrator can stop the test. When the student is prepared to continue the test, the assessment must be resumed on the same day from the point at which it was stopped.~~

NOTE 6~~7~~: Paraphrasing is re-stating the text and does not include providing definitions or detailed explanations, using sign language, using a text scanner with voice synthesizer, or using other appropriate technology. Only directions may be paraphrased. Items, including sample questions, may not be paraphrased as part of a presentation accommodation.

NOTE 7~~8~~:

A. Accommodations **53**, **55,** and **58** relate to the presentation of test directions and test items (questions and answer choices) to students. In addition to reading, these accommodations may involve writing the material on a blackboard, using sign language, using a text scanner with voice synthesizer, or using other appropriate technology.

B. For the English Language Proficiency Test, accommodations **55** and **58** are not allowed, as these accommodations interfere with what the test purports to measure.

C. When preparing to administer the test(s) to students who are deaf or hard of hearing or to students who are blind or visually impaired, test administrators may review eligible test material (i.e., math, science, or history test books; scripted directions for reading tests; non-reading portions of language arts tests) prior to test administration. The review must be authorized by the District Test Coordinator and must take place in a controlled, secure environment. A signed Confidentiality Agreement is required and must be on file when test administrators preview test items prior to the test administration. Test administrators should be familiar with specific symbols or abbreviations particular to the content area being assessed.

D. When working with a student who has limited English proficiency, consideration needs to be given as to whether the assessment should be explained to the student in his or her native language or other mode of communication unless it is clearly not feasible to do so.

E. Students for whom American Sign Language (ASL) is the primary language may have directions and/or items signed to them, except for the reading sections of MAP. Other allowable signing systems are Signing Exact English (SEE), Signed English (SE), Sign Supported English (SSE or CASE), or Contact Sign (i.e., Pidgin Sign English [PSE]). Sign languages from other countries (i.e., Auslan, BSL, LSF) or non-standard sign systems (i.e., home sign) are not permitted to be used.

~~*F.* For the ACT, Accommodations **53**, **55**, and **58** **must be done individually and NOT as a group.**~~

F~~G~~. Guidance for the **Read-aloud Accommodations** on the MAP for students with an Individualized Education Program (IEP), Section 504 Plan, or Language Service Plan (LSP) who have this testing accommodation specified for this subject area:

ELA/English II
•A53 - For grades 3-8 and English II, the directions can be read to the students throughout the assessment.
•A55 and A58 – For grades 3-8 and English II, the directions and the questions and answer choices can be read aloud, but the reading passages cannot be read to the student. **Beginning with the 2016-2017 academic year, the read-aloud accommodation will be non-allowable for students in third grade. Reading the Writing Prompt is allowable.**

Math/Algebra I
•A53 - For grades 3-8 and Algebra I, the directions can be read to the students throughout the assessment.
•A55 and A58 – For grades 3-8 and Algebra I, the directions and the questions and answer choices can be read aloud to the student.

NOTE 8~~9~~:

A. The Scribe (Accommodation #70) must write exactly what the student says as dictated. The Scribe may not edit or alter the student's dictation in any way. The student is responsible for all capitalization, punctuation, and spelling (must spell out each word). The student should review the draft composition and make any necessary edits, including edits to capital letters and punctuation. A Scribe may not assist the student during the editing process. The Scribe transfers verbatim the student's responses to an answer document or online system.

B. The dictation process and transfer of answers must occur under secure conditions with at least two persons present.

C. For the **ACT**, the term "scribe" refers to the Test Supervisor.

D. For the **Kindergarten Readiness Assessment**, students can dictate or gesture answers to a Scribe, and the Scribe will mark answers directly into online test system in the presence of the Test Administrator and Proctor.

E. For the **Kindergarten Readiness Assessment**, students with disabilities (SWDs) and English learners (ELs) can dictate or gesture answers to a Scribe, and the Scribe will mark answers directly into the online test system in the presence of the Test Administrator. For children who receive homebound services or community-based services (e.g., children with disabilities attending Head Start or other childcare center), the Proctor may also serve as a Scribe, if one is needed.

F. For the **Third Grade Reading Summative and Alternate Assessment, ~~MKAS2~~**, students with disabilities (SWDs) can dictate or gesture answers to a Scribe, and the Scribe will mark answers directly into the online test system in the presence of the Test Administrator and Proctor. This accommodation (#70) must be listed in the student's IEP or Section 504 Plan and specified for this assessment area.

NOTE 9~~10~~: Accommodation **47** relates to cueing. Cueing is assisting the student in focusing his/her attention. Cueing strategies include, but are not limited to, arrows, lines, space, contrasting colors, position or focal point, underlining, labeling, size, and shading. Cues may be used only in test directions and in test questions. Cues may not be used in the answer choices. Cues provided on answer booklets/documents must be erased before they are returned for scoring. Cues provided on test books do not have to be erased since test books are non-scorable documents.

A. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 1~~1~~0:

A. Accommodation **48** relates to the use of memory aids. A memory aid, fact chart, and/or resource sheet is something that helps a student remember how to find the answer; it should not give him/her the answer. This accommodation cannot interfere with what the test purports to measure. For example, if the test measures computation skills, a multiplication fact chart is a non-allowable accommodation since it gives the answer or a portion of the answer to the item assessing multiplication skills.

B. The compilation of allowable and non-allowable materials is by no means exhaustive. Prior approval is not required for the memory aids, fact charts, and/or resource sheets labeled allowable. All other material requires prior approval from the Office of Student Assessment (OSA). You must complete the Accommodation Request Form. Submissions may be sent any time during the school year, but no later than four (4) weeks prior to the test administration for which the use of the memory aid is intended. The memory aids, fact charts, and/or resource sheets for state assessments must be limited to 1-3 pages per content area.

C. Only a student who is visually-impaired may use the abacus to solve mathematics problems. No prior approval is required for use of the abacus by students with visual impairments.

D. For the **ACT**, an abacus (as listed in A**48** and A**98**) must be requested as an accommodation from ACT.

~~*D.*~~*E.* This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 11~~2~~: For accommodation **61**, calculators are allowable only in specified Calculator Sections for MAP Mathematics grades 6-8 and Algebra 1. Beginning with the 2011-2012 academic year,

i. (SATP2 Algebra I) all formulas, applications, and/or programs (including, but not limited to, Zoom Math/Zoom Algebra) **must be disabled or removed** from the calculators to be used by students.

ii. School districts must outline in their District Test Security Plan the processes and/or procedures to be used to ensure that the calculators used by students during a state assessment administration for the tests listed above do not have any stored formulas, applications, and/or programs.

iii. Students may use personal calculators. However, the District Test Security Plan must address the processes and/or procedures to be used to ensure that personal calculators used by the students during a state assessment administration do not have any stored formulas, applications, and/or programs.

A. The calculator policy can be viewed at the following link:
MDE Calculator Policy

B. Calculators may be used on any **MS-CPAS2** test. The MDE's guidelines for calculator use on standardized assessments state that if using OSA approved graphing calculators, any formulas, applications, and / or programs must be cleared from the calculators before the assessment. Procedures for how to handle this issue should be outlined in the District Test Security Plan as this has been the policy since the 2011-2012 school year. Documentation related to specific calculators can be found at the MDE Website. The RCU recommends that districts not allow students to use the calculators built in to the operating systems on most computers as this is a test security issue.

C. Refer to the list of approved calculators as listed in the **ACT** materials and on the ACT website.
http://www.actstudent.org/faq/calculator.html?_ga=1.28160380.1154439628.141323420 7

D. The calculator policy can be viewed at the following link:
MDE Calculator Policy

E. Calculators may be used on any **MS-CPAS2** test. The MDE's guidelines for calculator use on standardized assessments state that if using OSA approved graphing calculators, any formulas, applications, and / or programs must be cleared from the calculators before the assessment. Procedures for how to handle this issue should be outlined in the District Test Security Plan as this has been the policy since the 2011-2012 school year. Documentation related to specific calculators can be found at the MDE Website. The RCU recommends that districts not allow students to use the calculators built in to the operating systems on most computers as this is a test security issue.

F. Refer to the list of approved calculators as listed in the **ACT** materials and on the ACT website.
http://www.actstudent.org/faq/calculator.html?_ga=1.28160380.1154439628.141323420 7

NOTE 123: Accommodation **73** – Tape record responses for later verbatim translation

i. Students must spell each word and note every punctuation mark as they dictate.

ii. Please consider using a tape recorder for a student's "draft."

iii. The tape can be played back to the student, who can stop and start the tape as necessary, spelling and punctuating the response more easily as dictation to the scribe takes place. The student must also note indentation or skipped lines during the dictation.

iv. The taped version can also be edited by the student.

v. The taped "draft" must not be written for the student to review until the dictation with spelling and punctuation has occurred. The student must also note indentation or skipped lines during the dictation.

vi. The student may be given the dictated response to review and may make revisions at that point.

vii. The dictation process must occur under secure conditions with at least two persons present.

viii. The response must be transcribed to the appropriate document or computer platform, if available, with appropriate Prompt Number gridded or in a blank Final Response Insert Page with appropriate Prompt Number gridded and the MSIS number written on the front cover of the Final Response Insert Page.

ix. If this method is used, the tape must be erased after the transcription has been completed.

x. This process, if used, should be added as an addendum to the School Test Security Plan.

xi. All persons (TA, Proctor, Scribe) involved in this process must sign Confidentiality Agreements.

~~xi.~~xii. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 13: Accommodation 76 - Communication Board is not allowable for the Third Grade Reading Summative Alternate Assessment.

NOTE 14: ** Accommodation **78 – Typewriter or word processor (without grammar/syntax checker and without word completion/prediction feature)

i. All tools for spelling, grammar check, and syntax must be turned off. Additionally, the device (e.g., NEO) must have the extra features disabled (e.g., Google Docs, linked files, Write On! Lessons, etc.).

ii. The student may not have access to the Internet.

iii. Typed responses are not to be submitted to the vendor; these typed responses must be transcribed under secure conditions with at least two persons present.

iv. The person transcribing must duplicate exactly what the student wrote, including exact spelling, punctuation, indentation, skipped lines, etc.

v. The response must be transcribed to the appropriate document or computer platform, if available, with appropriate Prompt Number gridded or in a blank Final Response Insert Page with appropriate Prompt Number gridded and the MSIS number written on the front cover of the Final Response Insert Page.

vi. The typed response must be erased from the assistive technology.

vii. The typed response must include the student's name and MSIS number. The student's typed response is considered secure material and must be returned with all scorable testing material.

viii. This process, if used, should be added as an addendum to the School Test Security Plan.

ix. ~~ix.~~ All persons (TA, Proctor, Scribe) involved in this process must sign Confidentiality Agreements.

~~•~~x. This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

Note 15: Accommodation 79 – This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 15~~5~~6: Accommodation 81 – Electronic word-to-word translating dictionaries may be used with the audio/speaker function turned off. In addition, the test administrator must ensure that electronic dictionaries are not connected to the Internet or any additional software. Refer to the Suggested List of Bilingual Dictionaries for EL Students for word-to-word glossaries.

~~a.~~*A.* This accommodation is not allowable on the Third Grade Reading Summative Alternate Assessment.

NOTE 16~~7~~: The Braille test administrator may review Braille test material prior to test administration, but the review must be authorized by the District Test Coordinator and must take place in a controlled, secure environment.

IV. Questions to Guide Evaluation of Accommodation Use on State Assessments at the School Level

~~1.~~

~~2.~~1. Are there policies in place to ensure ethical testing practices, the standardized administration of assessments, and that test security practices are followed before, during, and after testing?

~~3.~~2. Are there procedures in place to ensure test administration procedures are not compromised with the provision of accommodations?

~~4.~~3. Are students receiving accommodations as documented in their IEPs/504/LS Plans?

~~5.~~4. Are there procedures in place to ensure that test administrators adhere to directions for the implementation of accommodations?

~~6.~~5. How many students with IEPs/504/LS Plans are receiving accommodations?

~~7.~~6. What types of accommodations are provided and are some used more than others?

~~8.~~7. Are students provided accommodations tailored to their individualized needs or are all students receiving the same accommodations?

~~9.~~8. How well do students who receive accommodations perform on classroom tests, local assessments, and state assessments? If students are not meeting the expected level of performance, is it due to the students not having had access to the necessary instruction, not receiving the accommodation, or using accommodations that were not effective?

Student-level questions need to be considered by the IEP/504/LS~~EL~~ Team to evaluate the use of accommodations. It is critical to continually evaluate the use of accommodations to ensure that the most appropriate and successful accommodations are being used.

Questions to Guide Evaluation of Accommodation Use on State Assessments at the Student Level

~~1.~~

~~2.~~1. What accommodations are used by the student during instruction and on classroom assessments?

~~3.~~2. What are the results of classroom assignments and classroom tests when accommodations are used versus when accommodations are not used? If a student did not meet the expected level of performance, is it due to not having access to the necessary instruction, not receiving the appropriate accommodations, or ineffective use of accommodations?

~~4.~~3. What accommodations are used by the student during state assessments?

~~5.~~4. What are the results of state assessments when accommodations are used? Does this performance mirror performance on classroom tests? If a student did not meet the expected level of performance, is it due to lack of access to the necessary instruction, not receiving the appropriate accommodations, or ineffective use of accommodations?

~~6.~~5. What is the student's perception of how well the accommodation worked?

~~7.~~6. Which accommodations seemed to be least effective or ineffective?

~~8.~~7. What combinations of accommodations seem to be effective?

~~9.~~8. What are the difficulties encountered in the use of accommodations?

~~10.~~9. What are the perceptions of teachers and others about how the accommodation appears to be working?

School-level questions should be addressed by a committee responsible for continuous improvement efforts. It is critical to stress that evaluation is not the responsibility of just one individual. The entire IEP/504/~~E~~LS Team should contribute to the information gathering and decision-making processes.

V. Guidelines for Administering Specific Accommodations

This information must be used by the test administrator in providing these accommodations on state assessments. If questions arise regarding the use of accommodations or these guidelines, contact your STC (School Testing Coordinator).

Reading Accommodation

Test administrators providing a reading accommodation must ensure that all students understand what is expected of them when receiving a reading accommodation. However, test administrators cannot answer questions about specific test items. When reading test items aloud, test administrators must be careful not to inadvertently give clues that indicate the correct answer or help eliminate some answer choices. Test administrators should use even inflection so that the student does not receive any cues by the way the information is read. It is important for test administrators to read test items/questions, answer choices, and graphics (tables, charts, graphs, and illustrations) verbatim (word-for-word), exactly as written. Test administrators may not clarify, elaborate, or provide assistance to students. It is recommended that a proctor be used in the setting for a reading accommodation. At no time may a proctor provide a reading accommodation or a reading accommodation be recorded. The test administrator should understand the protocols for administering a specific assessment.

Sign Language or Native Language Interpreter

When using either a sign language or native language interpreter during the time oral instruction is given to the student, the interpreter may only interpret the directions for the student.

For students who are provided a sign language interpreter as a reading accommodation, the interpreter must sign verbatim the individual test items and answer choices. When signing the individual test items and answer choices the interpreter must not clarify, elaborate, paraphrase, or provide assistance with the meaning of words.

Marking Answers in Test Booklet

Students may mark multiple-choice and gridded answers in the test booklet instead of marking the answers on an answer document. Answers to open-ended responses must be written in the answer document or recorded online by a scribe (proctor or assistant). Two certified individuals must transcribe the answers verbatim to a regular test booklet or online system containing the student's demographic information.

Dictation to a Scribe (Proctor or Assistant)

Scribes may be provided for students with disabilities who are significantly impacted in the area of written expression or who have a physical disability that impedes their motor process or ability to write. Scribes should be impartial and must write exactly what the student dictates. Scribes should not affect the outcome of a test in any way. Scribes are not allowed to elaborate on what is being written. They cannot answer or explain anything to the student during testing and must be careful not to give hints of any type. The student must be allowed to review and edit what the scribe has written.

Extended Time

Students who are regularly given extended time on classroom activities, classroom assignments, and classroom tests may qualify for a specified amount of extended or additional time on selected state assessments. Extended or additional time varies depending on the particular state assessment. Decisions should be made on a case-by-case basis, keeping in mind all the accommodations being provided and the nature of the assessment. For example, if a read-aloud accommodation or scribe is being used, extended time may not be necessary.

Large Print

Students who regularly use large-print materials in the classroom may qualify for large-print materials on state assessments. The use of a large-print answer document for students testing with a large-print test booklet is required on selected state assessments. Two certified individuals must transcribe the answers verbatim to a regular test booklet or online system containing the student's demographic information.

Braille

Students who regularly use braille materials in the classroom qualify for braille materials on selected state assessments. Two certified individuals must transcribe the answers verbatim to a regular test booklet containing the student's demographic information.

Templates

Templates are used by students to aid in reading or writing. A template is not a graphic organizer. Templates are the size of an index card or larger with a "cut out" area to allow the student to see or write one word, multiple words, or a line of print at a time. The template may also be used on the answer document or online to aid the student in gridding one answer choice for each test question. The template is moved down the page or answer document as the student reads, writes, or works.

Administered by a Specific Teacher

There are situations where it is appropriate for the IEP/504 Committee to specify a teacher to serve as the student's test administrator. Care, however, should be given in selecting this accommodation. There are situations where it is impossible to provide this accommodation (e.g., when the decision for an individual administration by the student's special education teacher has been selected for five different students in the same teacher's classroom).

Assistive Technology/Communication Device

The use of Assistive Technology/Communication Device must be appropriate so that it does not invalidate a state assessment or supplant the skill that the state assessment is designed to measure. Extreme caution must be taken to ensure that when using any type of Assistive Technology/Communication Device the cognition is performed entirely by the student unless the device is allowed on a state assessment. (e.g., the use of a calculator). MDE Approval is required for all communication devices prior to the student taking a state assessment.

With Other Accommodations Needed Due to the Nature of the Disability or the Level of Language Proficiency

The accommodations checklists, although not exhaustive, have been provided to identify approved accommodations available to students for use on state assessments. In the event that an accommodation used during instruction and on classroom tests is requested for use on a state assessment, and the accommodation is not listed on the accommodations checklist, the accommodation may be requested by selecting the "With other accommodations needed due to the nature of the disability and the nature of the assessment".

When this accommodation is selected, the DTC completes the "Form Requesting Testing Accommodations Needing MDE Approval". The form is completed in its entirety and submitted by the STC to the MDE no later than four weeks prior to the assessment to be administered. Additional documentation (prior practice documentation in the IEP/504 Plan, proof of prior practice in the classroom on a regular basis, and proof of success of the accommodation) must be provided.

VI. Accommodations Chart for Online and Paper-Pencil Administrations

Mississippi Assessment Program (MAP) for Grades 3-8
Mississippi Assessment Program Alternate (MAP-A) Grades 3-8
Mississippi Science Test (MST2) Grades 5 and 8
Students with Current IEPs, 504 Plans, and/or Language Service Plans

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
4	Individually to accommodate specific disability	No	No	Yes	Yes	Yes	Yes
7	At home (only for homebound students)	No	No	Yes	Yes	Yes	Yes
8	In a study carrel	Yes	Yes	Yes	Yes	Yes	Yes
9	With special lighting	No	Yes	Yes	Yes	Yes	Yes
11	Secure paper to work area with magnets/tape	No	No	Yes	Yes	Yes	Yes
21	With scheduled rest breaks	No	Yes	Yes	Yes	Yes	Yes
22	At time of day to accommodate student's disability. Refer to Note 5	No	No	Yes	Yes	Yes	Yes
23	Extended time through the end of the day	Yes	See Note 4	Yes	Yes	Yes	Yes
24	Administer the test over several sessions, specifying the duration each session (Testing must be completed within testing window) Refer to Note 4	Yes	See Note 4	Yes	Yes	Yes	Yes
25	Administer the test over several days, specifying the duration of each session (Testing must be completed within testing window) Not allowable for speaking component of the LAS Links Test for EL) Refer to Note 4	Yes	See Note 4	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
40	Large print (Paper/pencil version) (Accommodation 70 to transfer online)	No	Yes	Yes	Yes	Yes	Yes
41	Braille (responses must be transcribed verbatim) Refer to Note 17~~6~~	No	No	Yes	Yes	Yes	Yes
43	Auditory trainers	No	No	Yes	Yes	Yes	Yes
44	Transparent color overlays	Yes	Yes	Yes	Yes	Yes	Yes
45	Magnifying glasses/magnifying equipment	No	No	Yes	Yes	Yes	Yes
47	Provide cues on answer form in pencil (e.g., arrows, lines, space, contrasting colors, position or focal point, underlining, labeling, size, shading and stop signs) (Cues may only be used in test directions and test questions. Cues may not be used in answer choices.) Refer to Note 9~~10~~	Yes	No	Yes	Yes	Yes	Yes
48	Use of memory aids, fact charts, resource sheets, and/or abacus (Only a student who is visually-impaired may use the abacus to solve mathematics problems.) Refer to Note 10~~1~~	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
50	Highlight key words/phrases in directions (e.g., complete sentences, show your work) by the test administrator	Yes	No	Yes	Yes	Yes	Yes
*	**ONLY choose one: 53, 55, or 58**						
53*	Read test directions (but NOT test items) to student or group-repeating and/or paraphrasing directions if needed ~~(Paraphrasing is re-stating the text and does NOT include providing definitions or detailed explanations, using sign language, using a text scanner with voice synthesizer, or using other appropriate technology)~~ Refer to Notes 6~~7~~ & 7~~8~~ ___human reader via book (e.g., paper-pencil, writing) ___human reader via online (MAP ELA and MKAS2 text never read aloud)	Yes	Yes	Yes	Yes	Yes	Yes
55*	Read test directions and test items (questions and answer choices) to individual students or the group-repeating directions/items but NOT paraphrasing Refer to Notes 6~~7~~ & 7~~8~~ ___human reader via book (e.g., paper-pencil, writing) ____screen reader online	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
58 *	Read test directions and test items (questions and answer choices) to individual students or the group- repeating directions/items, and paraphrasing directions only ~~Read test directions and test items (questions and answer choices) to individual students or a group- repeating and/or paraphrasing ONLY the directions, NOT test items,~~ if needed Refer to Notes 8	Yes	No	Yes	Yes	Yes	Yes
61	Calculator for Mathematics Allowable ONLY Grades 6-8 Refer to Note 11~~2~~	Note 12	No	No	No	Yes	Yes
70	Dictation of answers to test administrator/proctor (scribe) (Must be written exactly as the student dictates. Editing or altering in any way is prohibited. The student is responsible for capitalization, punctuation, and spelling. The student should review the draft for revision without prompting or assistance) Refer to Note 8~~9~~	Yes	Yes	Yes	Yes	Yes	Yes
72	Allow marking of answers in test booklet and transferring of answers from test booklet to answer document by test administrator (i.e., large print) (The dictation process AND transfer of answers must occur under secure conditions with at least two persons present) Refer to Note 8~~9~~	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading	ELA Writing	Mathematics	Science
73	Tape record responses for later verbatim translation Refer to Note 12~~3~~	No	No	Yes	Yes	Yes	Yes
74	Provide copying assistance between drafts Refer to Notes 8~~10 & 11~~	No	No	Yes	Yes	Yes	Yes
75	Brailler	No	No	Yes	Yes	Yes	Yes
76	Communication board Refer to Note 13	No	No	Yes	Yes	Yes	Yes
77	Augmentative communication device	No	No	Yes	Yes	Yes	Yes
78	Computer/word processor/NEO (WITHOUT grammar/syntax checker or word completion/prediction features) Refer to Note 13~~4~~	No	No	Yes	Yes	Yes	Yes
79	Computer/word processor/NEO (WITHOUT grammar/syntax checker, WITH word completion/prediction feature) Refer to Note 14 and 15	No	No	Yes	No	Yes	Yes
80	Adapted keyboards	No	No	Yes	Yes	Yes	Yes
81	Native language dictionaries for EL students (i.e. dictionaries that translate English words into the native language – no definitions are given in either language. Refer to Note 14~~6~~	Yes	No	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	ELA Reading ~~Algebra 1~~	ELA Writing ~~Biology 1~~	Mathematics ~~English II Read/Voc~~	Science~~English II Writing/ Grammar~~
82	Spelling dictionaries (dictionaries show correct spelling of English words, do NOT give definitions)	No	No	No	No	Yes	Yes
98	Other allowable accommodation	Yes	Yes	Yes	Yes	Yes	Yes
99	Other non-allowable accommodation	No	No	No	No	No	No

Accommodations Chart for Online and Paper-Pencil Administrations

Mississippi Assessment Program End of Course and
Mississippi Subject Area Testing Program 2 for
Students with Current IEPs, 504 Plans, and Language Service Plans

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
4	Individually to accommodate specific disability	No	No	Yes	Yes	Yes	Yes	Yes
7	At home (only for homebound students)	No	No	Yes	Yes	Yes	Yes	Yes
8	In a study carrel	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	With special lighting	No	Yes	Yes	Yes	Yes	Yes	Yes
11	Secure paper to work area with magnets/tape See Note	No	No	Yes	Yes	Yes	Yes	Yes
21	With scheduled rest breaks	No	Yes	Yes	Yes	Yes	Yes	Yes
22	At time of day to accommodate student's disability. Refer to Note 5	No	No	Yes	Yes	Yes	Yes	Yes
23	Extended time through the end of the day	Yes	See Note 4	Yes	Yes	Yes	Yes	Yes
24	Administer the test over several sessions and/or days, specifying the duration each session (Testing must be completed within testing window) Refer to Note 4	Yes	See Note 4	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
25	Administer the test over several days, specifying the duration of each session (Testing must be completed within testing window) Not allowable for speaking component of the LAS Links Test for EL. Refer to Notes 4	Yes	See Note 4	Yes	Yes	Yes	Yes	Yes
40	Large print (Paper/pencil version) (Accommodation 70 to transfer online)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
41	Braille (responses must be transcribed verbatim) REFER TO NOTE 17~~6~~	No	No	Yes	Yes	Yes	Yes	Yes
43	Auditory trainers	No	No	Yes	Yes	Yes	Yes	Yes
44	Transparent color overlays	Yes	Yes	Yes	Yes	Yes	Yes	Yes
45	Magnifying glasses/magnifying equipment	No	No	Yes	Yes	Yes	Yes	Yes
47	Provide cues on answer form in pencil (e.g., arrows, lines, space, contrasting colors, position or focal point, underlining, labeling, size, shading and stop signs) (Cues may only be used in test directions and test questions. Cues may not be used in answer choices.) Refer to Note 9~~10~~	Yes	No	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
48	Use of memory aids, fact charts, resource sheets, and/or abacus (Only a student who is visually-impaired may use the abacus to solve mathematics problems.) Refer to Note 10~~1~~	Yes	No	Yes	Yes	Yes	Yes	Yes
50	Highlight key words/phrases in directions (e.g., complete sentences, show your work) by the test administrator	Yes	No	Yes	Yes	Yes	Yes	Yes
*	**ONLY choose one: 53, 55, or 58**							
53*	Read test directions (but NOT test items) to student or group- repeating and/or paraphrasing directions if needed ~~(Paraphrasing is re-stating the text and does NOT include providing definitions or detailed explanations; may involve writing the material on a board, using sign language, using a text scanner with voice synthesizer, or using other appropriate technology)~~ Refer to Notes 6~~7~~ & 7~~8~~ ___human reader via book (e.g., paper- pencil, writing) ___human reader via online	Yes	Yes	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
55*	Read test directions and test items (questions and answer choices) to individual students or the group-repeating directions/items but NOT paraphrasing Refer to Notes 6~~7~~ & 7~~8~~ ___human reader via book (e.g., paper-pencil, writing) ___screen reader online	Yes	No	Yes	Yes	Yes	Yes	Yes
58*	Read test directions and test items (questions and answer choices) to individual students or the group- repeating directions/items, and paraphrasing directions only ~~Read test directions and test items (questions and answer choices) to individual students or a group repeating and/or paraphrasing ONLY the directions, NOT test items, if needed~~	Yes	No	Yes	Yes	No	Yes	Yes
61	Calculator for Mathematics Allowable ONLY Grades 6-8 Refer to Note 11~~2~~	See Note 12	No	Yes	No	No	No	No

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
70	Dictation of answers to test administrator/proctor (scribe) (Must be written exactly as the student dictates. Editing or altering in any way is prohibited. The student is responsible for capitalization, punctuation, and spelling. The student should review the draft for revision without prompting or assistance) Refer to Note 8~~9~~	Yes	Yes	Yes	Yes	Yes	Yes	Yes
72	Allow marking of answers in test booklet and transferring of answers from test booklet to answer document by test administrator (i.e., large print) (The dictation process AND transfer of answers must occur under secure conditions with at least two persons present) Refer to Note 8~~9~~	Yes	No	Yes	Yes	Yes	Yes	Yes
73	Tape record responses for later verbatim translation Refer to Note 12~~3~~	No	No	Yes	Yes	Yes	Yes	Yes
74	Provide copying assistance between drafts Refer to Notes 8 ~~10 & 11~~	No	No	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
75	Brailler	No	No	Yes	Yes	Yes	Yes	Yes
76	Communication board	No	No	Yes	Yes	Yes	Yes	Yes
77	Augmentative communication device	No	No	Yes	Yes	Yes	Yes	Yes
78	Computer/word processor/NEO (WITHOUT grammar/syntax checker or word completion/prediction features) Refer to Note 1~~4~~4	No	No	Yes	Yes	Yes	Yes	Yes
79	Computer/word processor/NEO (WITHOUT grammar/syntax checker, WITH word completion/prediction feature)	No	No	Yes	Yes	Yes	No	Yes
80	Adapted keyboards	No	No	Yes	Yes	Yes	Yes	Yes
81	Native language dictionaries for EL students (i.e. dictionaries that translate English words into the native language – no definitions are given in either language. Refer to Note 1~~6~~4	Yes	No	Yes	Yes	Yes	Yes	Yes

#	ACCOMMODATION	EL *(All Assessments; excludes ELPT)*	ELPT	Algebra 1	Biology 1	English II Read/Voc	English II Writing/ Grammar	U. S. History
82	Spelling dictionaries (dictionaries show correct spelling of English words, do NOT give definitions)	No	No	Yes	Yes	No	No	Yes
98	Other allowable accommodation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
99	Other non-allowable accommodation	No	No	No	No	No	Yes	No

General Accessibility Features for ALL STUDENTS

#	Feature	Allowable
1	At the front of the room	Yes
2	Facing test administrator while directions are given	Yes
3	In a small group	Yes
5	In a familiar room	Yes
6	With a familiar teacher	Yes
44	Transparent color overlays	Yes
46	Templates to reduce visible print	Yes
49	Cue student to stay on task	Yes
60	Use of highlighter by student in test booklet	Yes
98	Other **allowable** accommodation	Yes
100	Use of a computer mouse	Yes

VI. Do's and Don'ts When Selecting Accommodations

Accommodations should enable the students to participate more fully in instruction and assessments and to better demonstrate their knowledge and skills. They must be aligned with and be part of daily instruction; accommodations must not be introduced for the first time during the testing of a student.

Do...make accommodation decisions based on individualized needs.	Don't...make accommodation decisions based on whatever is easiest to do (e.g., preferential seating).
Do...refer to state accommodation policies and understand implications of selections.	Don't...select every accommodation possible on a checklist simply to be "safe".
Do...get input about accommodations from teachers, parents, and students, and use it to make decisions at the IEP/504 planning meeting.	Don't...make decisions about instructional and state assessment accommodations alone.
Do...select instructional and state assessment accommodations based on specific individual needs in each content area.	Don't...assume certain accommodations, such as extra time, are appropriate for every student in every content area.
Do...provide opportunities for students to practice built in online accommodations throughout the year.	Don't...introduce an online accommodation to the student the day of the test.
Do...be familiar with the types of accommodations that can be used as both instructional and assessment accommodations.	Don't...assume that all instructional accommodations are appropriate for use on state assessments.
Do...evaluate accommodations used by the student.	Don't...assume the same accommodations remain appropriate year after year.
Do...be certain to document instructional and state assessment accommodation(s) in the IEP/504/LS Plan.	Don't...use an accommodation that has not been documented in the IEP/504/LS Plan.
Do...select accommodations that reduce the effect of the disability to access instruction and demonstrate learning.	Don't...select accommodations unrelated to documented student learning needs or those intended to give students an unfair advantage.

VII. List of Abbreviations and Acronyms

ADA	Americans with Disabilities Act
ADD; AD/HD; ADHD; ADD/In	Attention-Deficit/Hyperactivity Disorder; ADD Inattentive
AT	Assistive Technology
AU	Autism
BIP	Behavior Intervention Plan
DB	Deafness/Deaf Blind
DD	Developmental Delayed
EmD	Emotional Disability
FBA	Functional Behavioral Assessment
FAPE	Free and Appropriate Public Education
HI	Hearing Impaired
ID	Intellectual Disabilities
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Program
LRE	Least Restrictive Environment
LS	Language Speech
OHI	Other Health Impairment
OI	Orthopedic Impairment
MD	Multiple Disabilities
MDR	Manifestation Determination Review
PLAAFP	Present Levels of Academic Achievement and Functional Performance
RS	Related Services
RTI	Response to Intervention
SLD	Specific Learning Disability
SLI	Speech Language Impairment
SC	Self-Contained
TBI	Traumatic Brain Injury
VI	Visual Impairment

Mississippi Testing Accommodations Manual

Reference Guide: Allowable and Non-Allowable Accommodations

Revised February 2017

Mississippi Statewide Assessment System

Office of Student Assessment

Mississippi Department of Education

Accommodation 48

LANGUAGE ARTS – ALLOWABLE

Allowable Memory Aid

Topic

Introduction

Body		
Paragraph 1	Paragraph 2	Paragraph 3

Conclusion

Allowable Memory Aid

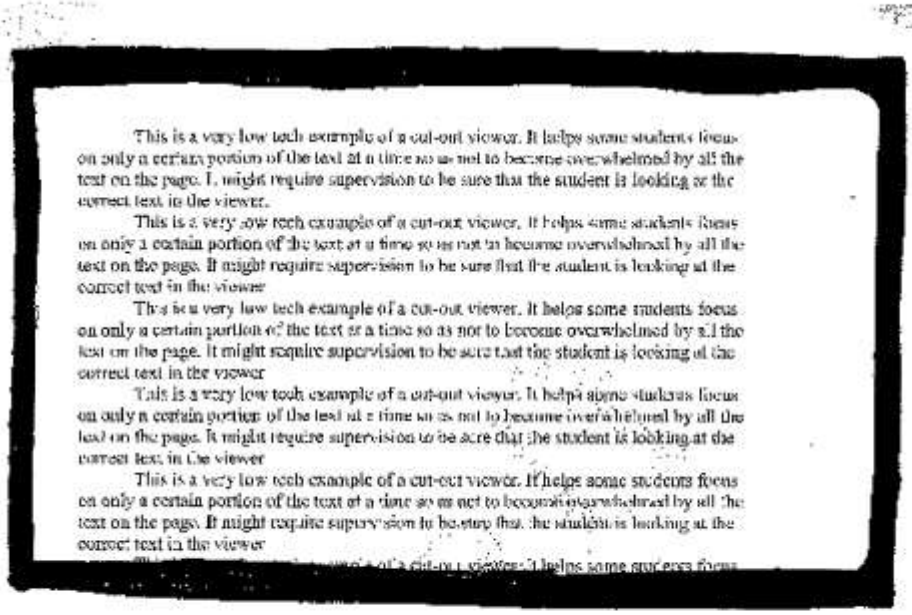
Allowable Memory Aid

Proofreading Checklist

Read each question below. Then check your paper. Correct any mistakes that you find. After you have corrected them, put a checkmark in the box next to the questions.

- ☐ 1. Did I spell all the words correctly?
- ☐ 2. Does each sentence state a complete thought?
- ☐ 3. Are there any run-on sentences or fragments?
- ☐ 4. Did I capitalize all proper nouns?
- ☐ 5. Did I end each sentence with the correct end mark?
- ☐ 6. Did I use commas, apostrophes, and quotation marks correctly?

Allowable Memory Aid



This is a very low tech example of a cut-out viewer. It helps some students focus on only a certain portion of the text at a time so as not to become overwhelmed by all the text on the page. It might require supervision to be sure that the student is looking at the correct text in the viewer.

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Accommodation 48

LANGUAGE ARTS - NON-ALLOWABLE

A **friendly letter** has five parts. They are the heading (1), greeting (2), body (3), closing (4), and signature (5). Match each number with the letter part below.

(1)
234 Mississippi Street
Anywhere, Mississippi 54545
Date, Year

(2)
Dear Sam,

(3)
I am so glad that you are moving to Mississippi. I think you will really like the fact that it does not get so cold in the winter. It does get cold, just not as cold as it gets in Denver.

Have you started packing yet? Be sure you bring all of your cards so we can trade. It will really be fun to have you living so close to my house. We can play every day!

Let me know what day you are supposed to get here. I can hardly wait!

(4)
Your friend,

(5)
Dimitri

NON-ALLOWABLE

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Words	Rules	Examples
bad badly	*Bad* is an adjective. It can be used after linking verbs like look and feel. *Badly* is an adverb.	This was a bad day. I feel bad. I play badly.
borrow lend	*Borrow* means "to take." *Lend* means "to give."	You may borrow my pen. I will lend it to you for the day.
can may	*Can* means "to be able to do something." *May* means "to be allowed or permitted."	Nellie can read quickly. May I borrow your book?
good well	*Good* is an adjective. *Well* is usually an adverb. It is an adjective only when it refers to health.	The weather looks good. She sings well. Do you feel well?
in into	*In* means "located within." *Into* means "movement from the outside to the inside."	Your lunch is in that bag. He jumped into the pool.
its it's	*Its* is a possessive pronoun. *It's* is a contraction of *it is*.	The dog wagged its tail. It's cold today.
let leave	*Let* means to "permit or allow." *Leave* means "to go away from" or "to let remain in place."	Please let me go swimming. I will leave soon. Leave it on my desk.
lie lay	*Lie* means "to rest or recline." *Lay* means "to put or place something."	The dog lies in its bed. Please lay the books there.
sit set	*Sit* means "to rest in one place." *Set* means "to place or put."	Please sit in this chair. Set the vase on the table.
teach learn	*Teach* means "to give instruction." *Learn* means "to receive instruction."	He teaches us how to dance. I learned about history.
their there they're	*Their* is a possessive pronoun. *There* is an adverb. It may also begin a sentence. *They're* is a contraction of *they are*.	Their coats are on the bed. Is Carlos there? There is my book. They're going to the store.
two to too	*Two* is a number. *To* means "in the direction of." *Too* means "more than enough" and "also."	I bought two shirts. A squirrel ran to the tree. May we go too?

NOT ALLOWABLE

Topic

1. Attention getter:
2. Information:
3. Thesis statement:

Paragraph 1	Paragraph 2	Paragraph 3
Reasons/Facts/Examples	Reasons/Facts/Examples	Reasons/Facts/Examples

Conclusion

Thesis restated:
Opinion/Prediction/Question:

NON-ALLOWABLE

Plot: What is the story about?
Mood: What is the feeling of the story?
Setting: Where does this story take place?
Characters: Who is the story about?

NON-ALLOWABLE

Contractions

he'll - he will
can't - cannot
she's - she is

Synonyms- same

little - small
big - huge
shut - close
hop – jump

Vowel Sounds

ee -feel
ea – peach
oa – boat
ai - sail

Antonyms – opposite

cold – hot
in – out
up - down

Homophones

their they're there
doe dough
to too two

Compare – Contrast

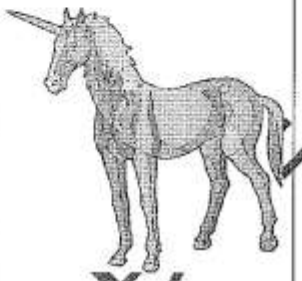
apples	bananas
red	yellow
round	long
fruit	fruit

NON-ALLOWABLE

Sample Phonetic Aids –-
Not Inclusive

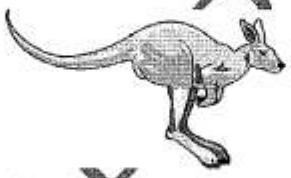
i
i_e
igh
_y

ow
ou



u
u_e
_ue
ew

j
ge
gi_
dge



k
c
_ck

s
ce
ci_

NON-ALLOWABLE

Symbol	Action
^	Insert a missing word, letter or punctuation mark.
/	Use a lower case letter.
=	Capitalize a lower case letter.
√	Check spelling.
¶	Start a new paragraph.

NON-ALLOWABLE

Punctuation Mark:	When to use:	Example:
comma ,	to separate items in a series	In our garden we planted corn, peas, beans, and carrots.
apostrophe ´	to show ownership	My teacher's book is red.
question mark ?	to show that a question is being asked	How far is it to Jackson?
exclamation point !	to show a strong emotion	I won the prize!
hyphen -	to separate a word at the end of a line	Miles ran quick-ly down the trail.
colon :	to separate the hour from the minute	It is 12:45 p.m.
period .	at the end of a sentence	The state bird of Mississippi is the mockingbird.

NON-ALLOWABLE

Brainstorming

- Quickly generate a list of ideas to write about.

Prewriting

- Create a method for organizing your ideas such as a semantic web, an outline, or other graphic organizer.

Drafting

- Write your first copy.

Revising

- Rework your writing for ideas, style, voice, organization, and word choice.

Editing

- Fix any errors in punctuation, capitalization, or usage.

Polishing and Publishing

- Write a final draft that is free of errors. Share your writing with others.

NON-ALLOWABLE

1. **Interrogative – Asks a question. Use a "?"**
   Would you share your cookies?

2. **Declarative – Makes a Statement. Use a "."**
   I will not share my cookies.

3. **Imperative – Makes a command. Use a "."**
   Share your cookies with me.

4. **Exclamatory – Communicates strong emotion or surprise. Use an "!"**
   I cannot believe you ate 27 cookies!

NON-ALLOWABLE

*Example: Dolch Sight List
List 5

from	want	put	every
good	don't	too	pretty
any	how	got	jump
about	know	take	green
around	right	where	four

*** No sight word vocabulary, word walls, or content vocabulary should be displayed.**

NON-ALLOWABLE

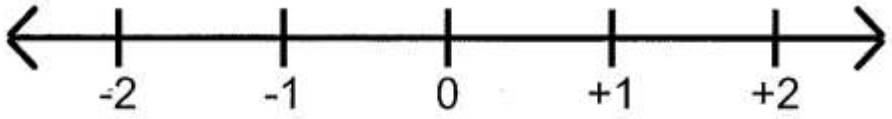
Accommodation 48

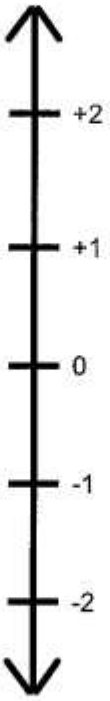
MATHEMATICS – ALLOWABLE

Allowable Memory Aid

Less Than | Greater Than

Allowable Memory Aid

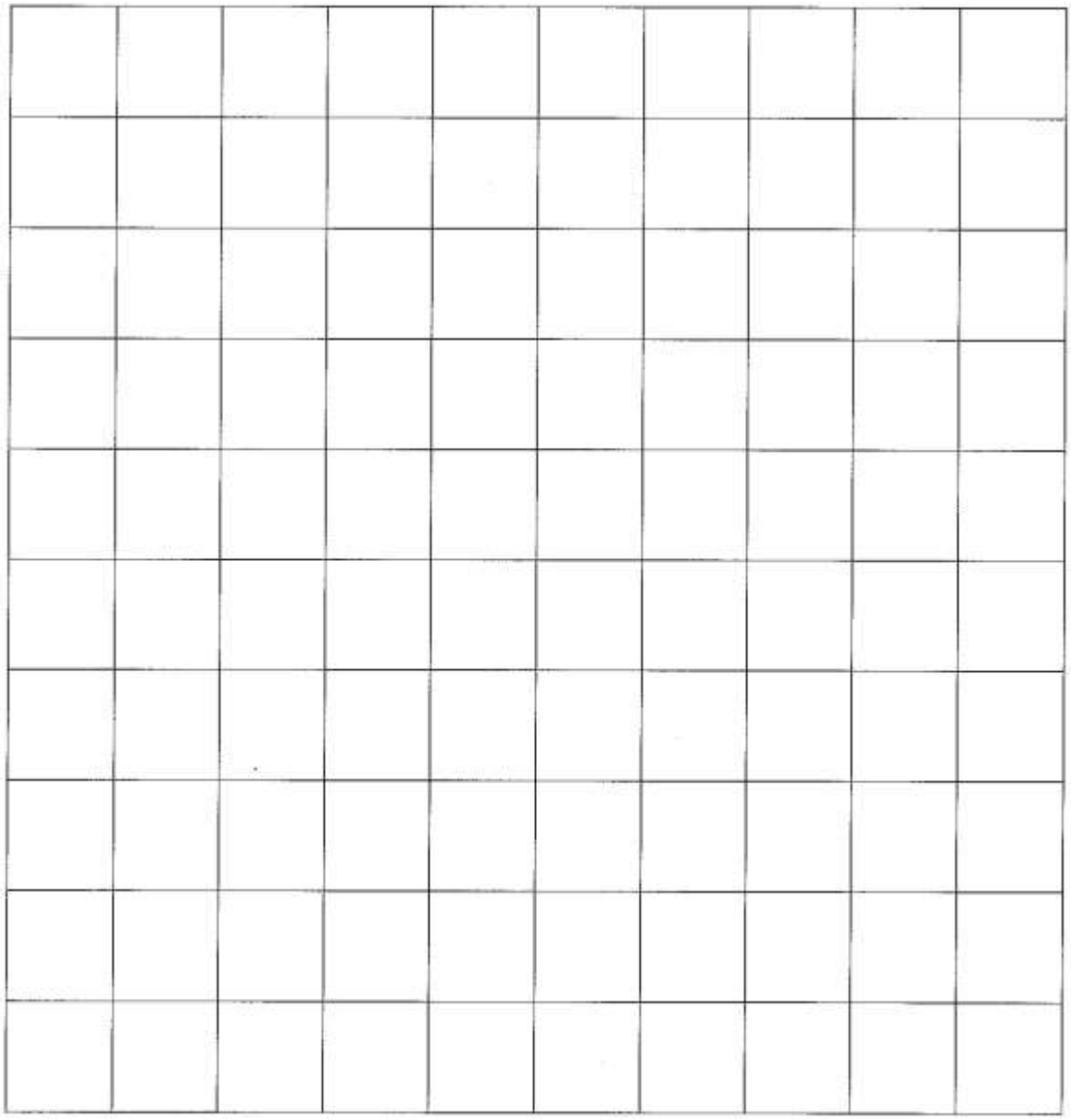




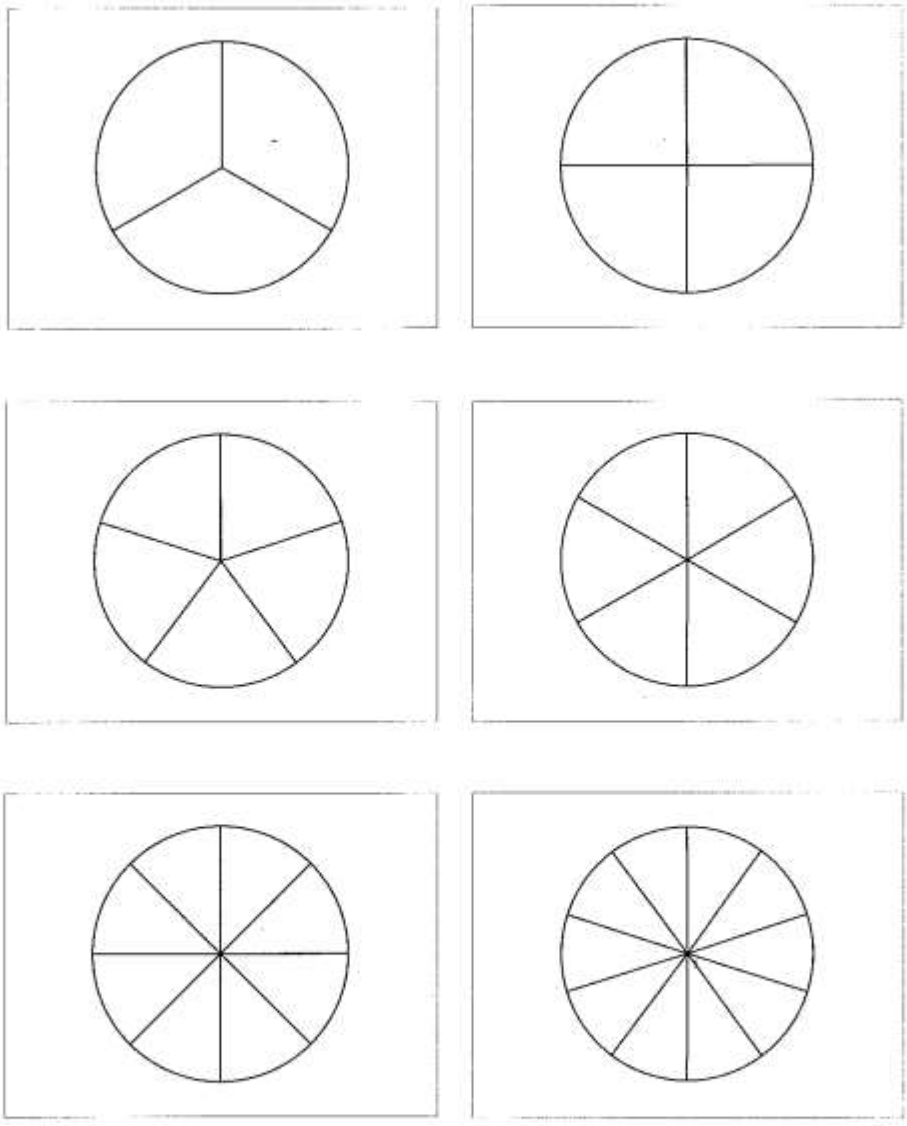
Allowable Memory Aid

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Allowable Memory Aid



Allowable Memory Aid



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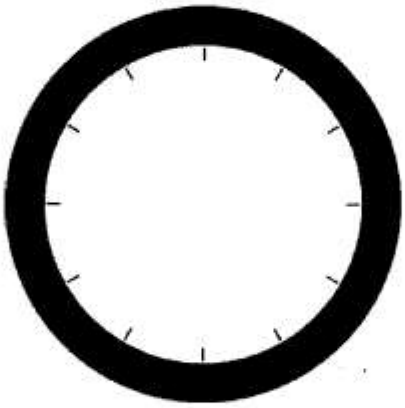

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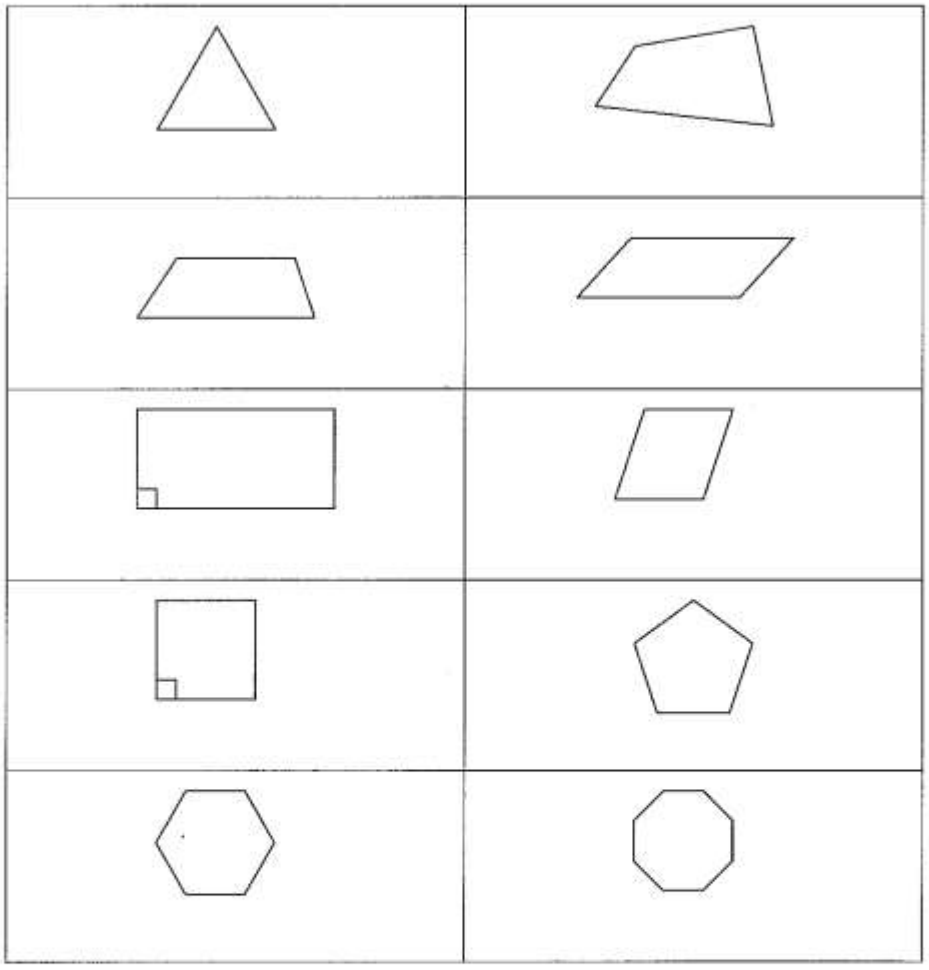

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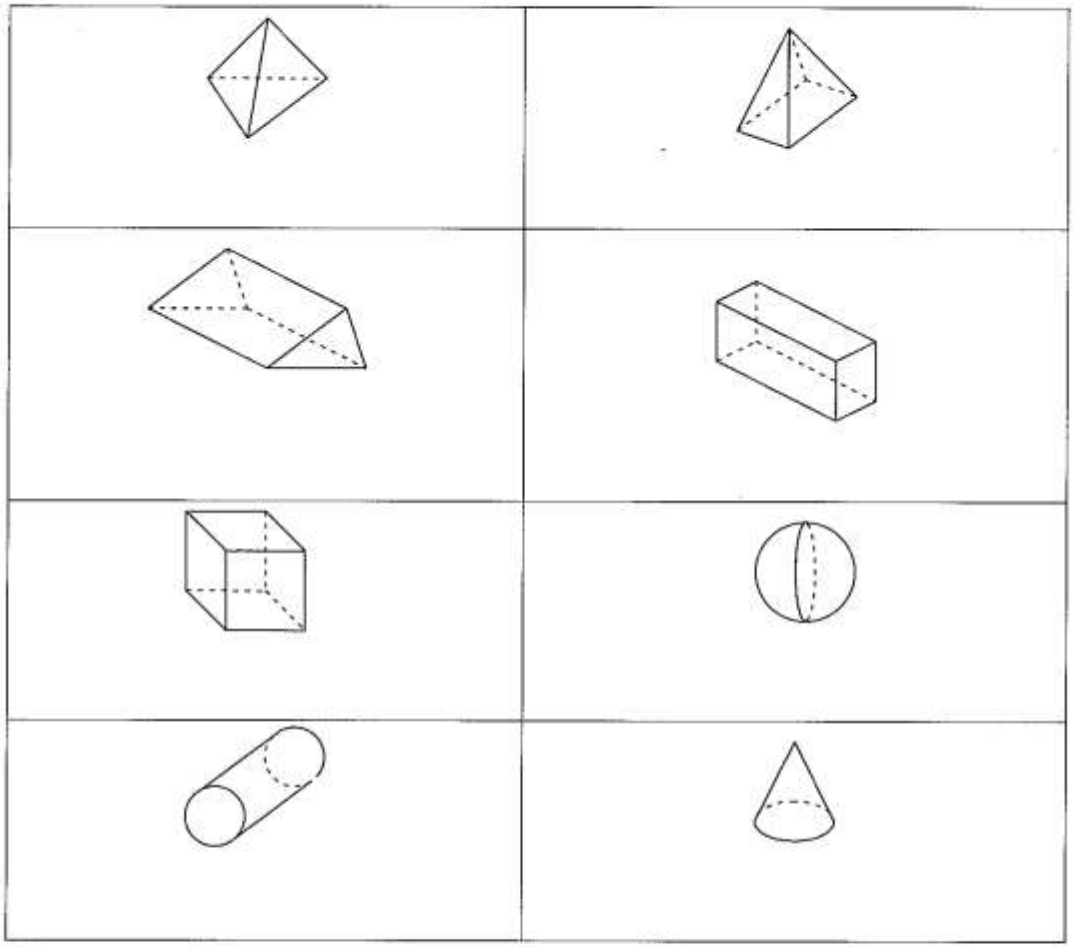


Allowable Memory Aid

WORD BANK

HEXAGON
OCTAGON
PARALLELOGRAM
PENTAGON
QUADRILATERAL
RECTANGLE
RHOMBUS
SQUARE
TRAPEZOID
TRIANGLE

CONE
CUBE
CYLINDER
RECTANGULAR PRISM
RECTANGULAR PYRAMID
SPHERE
TRIANGULAR PRISM
TRIANGULAR PYRAMID

Allowable Memory Aid

DMSCB	**D**oes **M**cDonalds **S**ell **C**heese **B**urgers?
PEMDAS	**P**lease **E**xcuse **M**y **D**ear **A**unt **S**ally
BEDMAS	**B**ig **E**lephants **D**estroy **M**ice **A**nd **S**nails
PEDMAS	**P**ink **E**lephants **D**estroy **M**ice **A**nd **S**nails
KHD**m**dcm	**K**ing **H**enry **D**ied **M**onday **D**rinking **C**hocolate **M**ilk

Accommodation 48

MATHEMATICS - NON-ALLOWABLE

Time

a.m. – between midnight and noon
p.m. – between noon and midnight

midnight – 12:00 a.m.
noon – 12:00 p.m.

1 minute	= 60 seconds	1 year	= 365 days
1 hour	= 60 minutes	1 leap year	= 366 days
1 day	= 24 hours	1 decade	= 10 years
1 week	= 7 days	1 century	= 100 years

1 year = 12 months

1 year = 52 weeks + 1 day

Days in Each Month

1	January	31	7	July	31
2	February	28	8	August	31
3	March	31	9	September	30
4	April	30	10	October	31
5	May	31	11	November	30
6	June	30	12	December	31

Season	Begins	Goes through	Ends
Spring	Mar. 20, 21	April – May	June 21,22
Summer	June 21, 22	July – August	Sept. 21, 22, 23
Fall	Sept. 21, 22, 23	Oct. – Nov.	Dec. 21, 22
Winter	Dec. 21, 22	Jan. – Feb.	Mar. 20, 21

NON-ALLOWABLE

Number Words

1 one	11 eleven	20 twenty
2 two	12 twelve	30 thirty
3 three	13 thirteen	40 forty
4 four	14 fourteen	50 fifty
5 five	15 fifteen	60 sixty
6 six	16 sixteen	70 seventy
7 seven	17 seventeen	80 eighty
8 eight	18 eighteen	90 ninety
9 nine	19 nineteen	100 one hundred
10 ten		1000 one thousand
		1,000,000 one million

21	twenty-one
31	thirty-one
46	forty-six
58	fifty-eight
67	sixty-seven
73	seventy-three
85	eighty-five
94	ninety-four

NON-ALLOWABLE

Addition Chart

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

NON-ALLOWABLE

Multiplication Chart

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144
13	13	26	39	52	65	78	91	104	117	130	143	156
14	14	28	42	56	70	84	98	112	126	140	154	168

NOT AVAILABLE

Miscellaneous

Odd/Even
Odd numbers: 1, 3, 5, 7, 9, ...
Even numbers: 0, 2, 4, 6, 8, ...

Counts
1 dozen = 12 items

Less Than/Greater Than
15 < 50 50 > 15
little < big big > little

NON-ALLOWABLE

ORDER OF OPERATION/SYMBOLS

Do operations within parentheses.	( )
Do powers (exponents) and roots.	$^2\sqrt{}$
Do multiplication and division in order from left to right.	x ÷
Do addition and subtraction in order from left to right.	+ –

NON-ALLOWABLE

OPERATIONS

Parentheses	( )
Powers (exponents)	^{2}
Roots	$\sqrt{}$
Multiplication	x
Division	÷
Addition	+
Subtraction	−

NON-ALLOWABLE

COMPARISONS

<	Is smaller than
>	Is greater than
=	Is equal to
≈	Approximate
≤	Is smaller or equal to
≥	Is greater or equal to

NON-AVAILABLE

FRACTIONS

$\frac{3}{5}$ - numerator — the number above the line in a fraction

5 - denominator — the number below the line in a fraction

NON-ALLOWABLE

OPERATIONS WITH FRACTIONS

To ***add*** or ***subtract*** different fractions, first obtain a common denominator:

$$\frac{1}{3}+\frac{2}{5}=\frac{5}{15}+\frac{6}{15}=\frac{11}{15}$$

To ***multiply***, multiply the numerators and multiply the denominators:

$$\frac{1}{3}\times\frac{2}{5}=\frac{1\times 2}{3\times 5}=\frac{2}{15}$$

To ***divide***, multiply the first with the reciprocal of the second fraction:

$$\frac{2}{3}\div\frac{1}{6}=\frac{2}{3}\times\frac{6}{1}=\frac{12}{3}=4$$

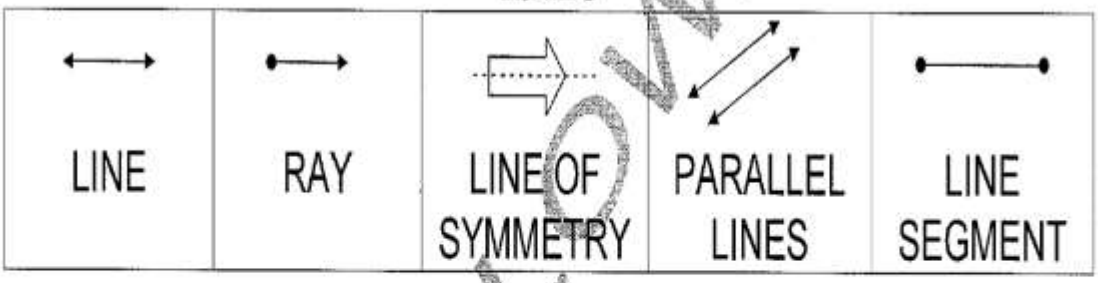
NON-ALLOWABLE

FRACTIONS, DECIMALS, PERCENTS – common equivalents

1	1.0	100%
$\frac{1}{2}$	0.5	50%
$\frac{1}{3}$	$0.\overline{3}$	$33.\overline{3}\%$
$\frac{1}{4}$	0.25	25%
$\frac{1}{5}$	0.2	20%
$\frac{1}{6}$	$0.1\overline{6}$	$16.\overline{6}\%$
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{9}$	$0.\overline{1}$	$11.\overline{1}\%$
$\frac{1}{10}$	0.1	10%
$\frac{1}{12}$	$0.08\overline{3}$	$8.\overline{3}\%$
$\frac{2}{3}$	$0.\overline{6}$	$66.\overline{6}\%$
$\frac{3}{4}$	0.75	75%

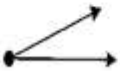
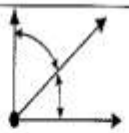
NON-AVOWABLE

LINES



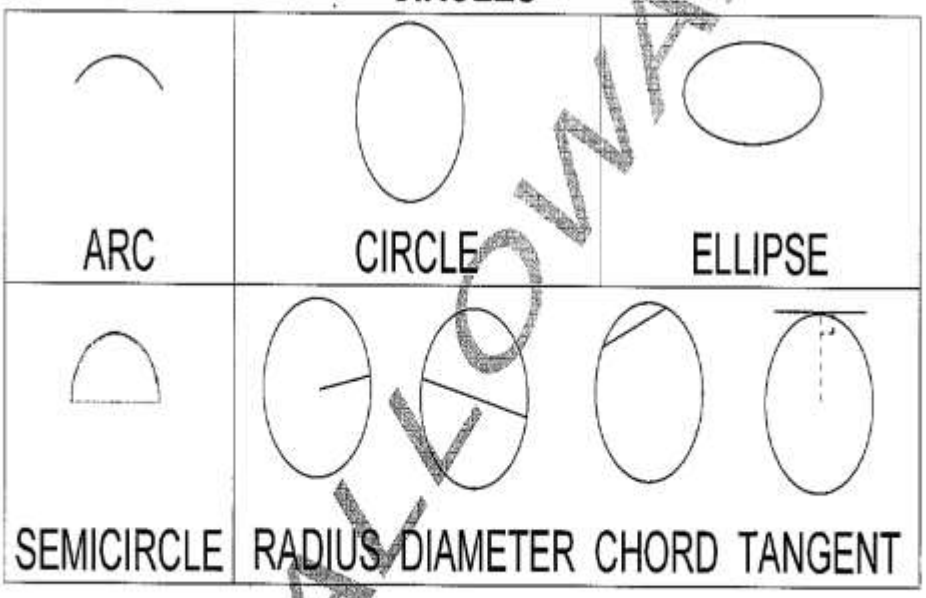
NON-ALLOWABLE

ANGLES

 ANGLE / VERTEX	0 DEGREE	90° RIGHT ANGLE
ACUTE less than 90°	STRAIGHT 180°	 COMPLEMENTARY add up to 90°
OBTUSE greater than 90° less than 180°	COMPLETE 360°	SUPPLEMENTARY add up to 180°

NON-ALLOWABLE

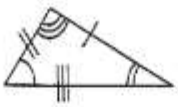
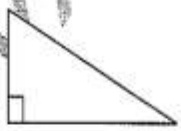
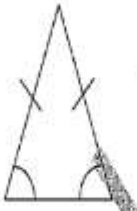
CIRCLES



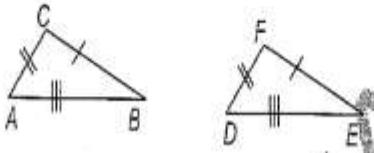
NON-ALLOWABLE

NOT ALLOWABLE

TRIANGLES

 SCALENE TRIANGLE	 RIGHT TRIANGLE
 ISOSCELES TRIANGLE	OBTUSE TRIANGLE
EQUILATERAL TRIANGLE	ACUTE TRIANGLE

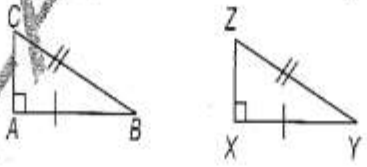
CONGRUENT TRIANGLES



$\triangle ABC \cong \triangle DEF$

4 CONGRUENCY CASES

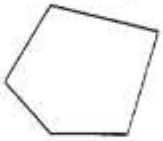
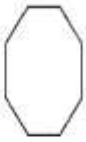
1. side, side, side SSS
2. side, angle, side SAS
3. angle, side, angle ASA
4. hypotenuse, side HyS



$\triangle ABC \cong \triangle XYZ$

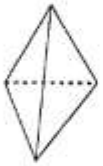
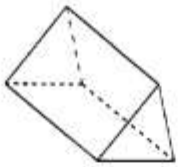
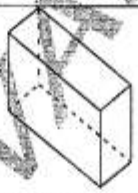
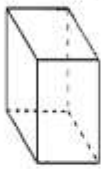
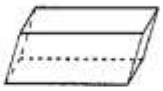
NON-REVIEWABLE

POLYGONS

 POLYGON	QUADRILATERAL
TRAPEZOID	PARALLELOGRAM
RECTANGLE	RHOMBUS
SQUARE	REGULAR PENTAGON
REGULAR HEXAGON	 REGULAR OCTAGON

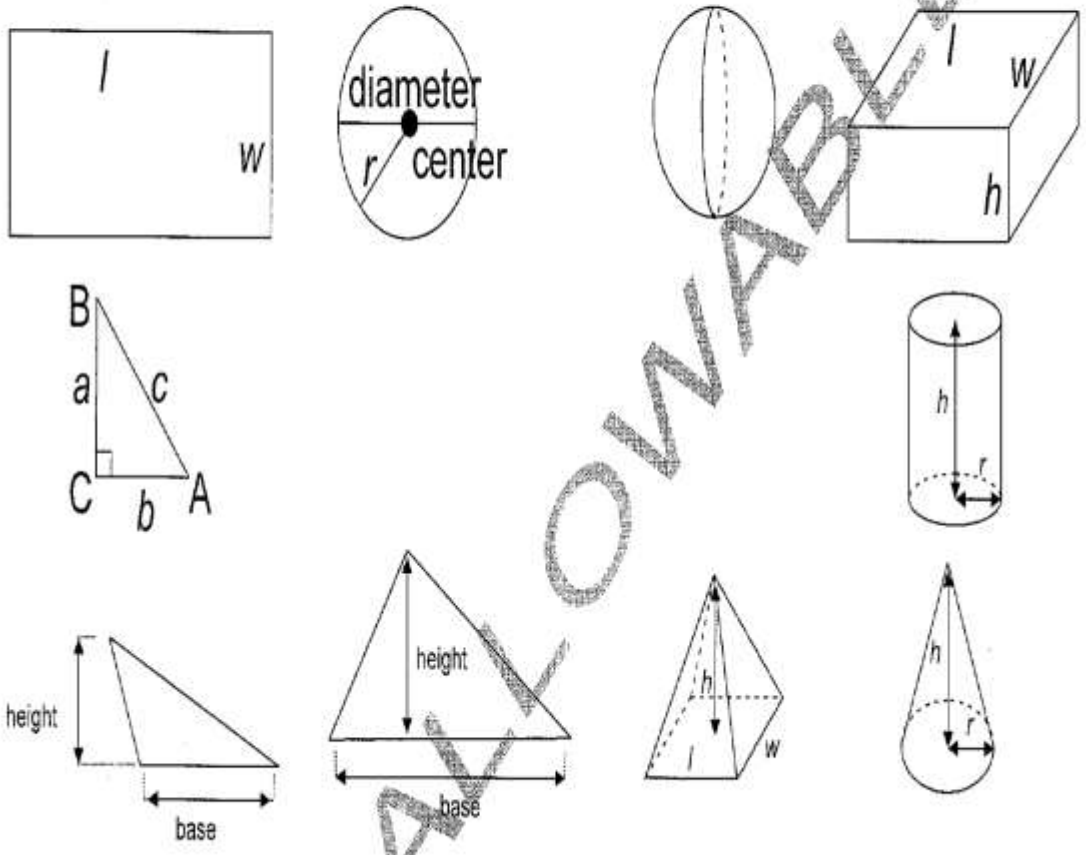
NON-ALLOWABLE

SOLIDS

 TRIANGULAR PYRAMID	RECTANGULAR PYRAMID
 TRIANGULAR PRISM	 RECTANGULAR PRISM
 CUBE	 PARALLELEPIPED
CYLINDER	CONE
SPHERE	ELLIPSOID

NOT ALLOWABLE

GEOMETRIC LABELS



NON-ALLOWABLE

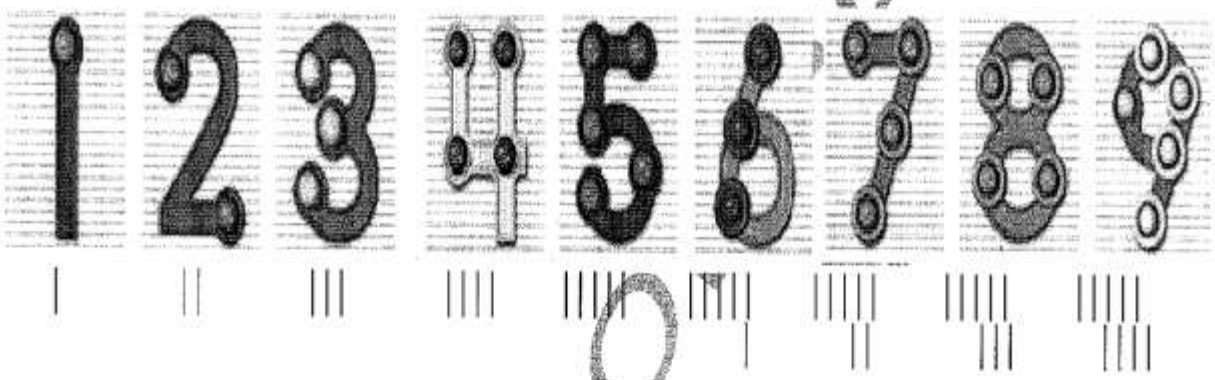
MULTIPLICATION TABLES

1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5	6 × 1 = 6
1 × 2 = 2	2 × 2 = 4	3 × 2 = 6	4 × 2 = 8	5 × 2 = 10	6 × 2 = 12
1 × 3 = 3	2 × 3 = 6	3 × 3 = 9	4 × 3 = 12	5 × 3 = 15	6 × 3 = 18
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20	6 × 4 = 24
1 × 5 = 5	2 × 5 = 10	3 × 5 = 15	4 × 5 = 20	5 × 5 = 25	6 × 5 = 30
1 × 6 = 6	2 × 6 = 12	3 × 6 = 18	4 × 6 = 24	5 × 6 = 30	6 × 6 = 36
1 × 7 = 7	2 × 7 = 14	3 × 7 = 21	4 × 7 = 28	5 × 7 = 35	6 × 7 = 42
1 × 8 = 8	2 × 8 = 16	3 × 8 = 24	4 × 8 = 32	5 × 8 = 40	6 × 8 = 48
1 × 9 = 9	2 × 9 = 18	3 × 9 = 27	4 × 9 = 36	5 × 9 = 45	6 × 9 = 54
1 × 10 = 10	2 × 10 = 20	3 × 10 = 30	4 × 10 = 40	5 × 10 = 50	6 × 10 = 60
1 × 11 = 11	2 × 11 = 22	3 × 11 = 33	4 × 11 = 44	5 × 11 = 55	6 × 11 = 66
1 × 12 = 12	2 × 12 = 24	3 × 12 = 36	4 × 12 = 48	5 × 12 = 60	6 × 12 = 72

7 × 1 = 7	8 × 1 = 8	9 × 1 = 9	10 × 1 = 10	11 × 1 = 11	12 × 1 = 12
7 × 2 = 14	8 × 2 = 16	9 × 2 = 18	10 × 2 = 20	11 × 2 = 22	12 × 2 = 24
7 × 3 = 21	8 × 3 = 24	9 × 3 = 27	10 × 3 = 30	11 × 3 = 33	12 × 3 = 36
7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40	11 × 4 = 44	12 × 4 = 48
7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	10 × 5 = 50	11 × 5 = 55	12 × 5 = 60
7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60	11 × 6 = 66	12 × 6 = 72
7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70	11 × 7 = 77	12 × 7 = 84
7 × 8 = 56	8 × 8 = 64	9 × 8 = 72	10 × 8 = 80	11 × 8 = 88	12 × 8 = 96
7 × 9 = 63	8 × 9 = 72	9 × 9 = 81	10 × 9 = 90	11 × 9 = 99	12 × 9 = 108
7 × 10 = 70	8 × 10 = 80	9 × 10 = 90	10 × 10 = 100	11 × 10 = 110	12 × 10 = 120
7 × 11 = 77	8 × 11 = 88	9 × 11 = 99	10 × 11 = 110	11 × 11 = 121	12 × 11 = 132
7 × 12 = 84	8 × 12 = 96	9 × 12 = 108	10 × 12 = 120	11 × 12 = 132	12 × 12 = 144

TOTALLOWABLE

TOUCH-POINT NUMBERS



adapted from https://www.touchmath.com/index.cfm?fuseaction=products.welcome&Cid=2&Pid=109

NON-ALLOWABLE

PARTS OF A DOLLAR

Dollar

100¢ = $1.00

1 dollar

$1.00

↑

75¢

↑

50¢

↑

25¢

NON-LOWABLE

COIN REPRESENTATIONS

Penny
1¢ = $0.01
1 cent

Nickel
5¢ = $0.05
5 cents

Dime
10¢ = $0.10
10 cents

Quarter
25¢ = $0.25
25 cents

NON-ALLOWABLE

PROPERTIES OF ADDITION AND MULTIPLICATION

Commutative property
of addition

$$a + b = b + a$$

Commutative property
of multiplication

$$ab = ba$$

Associative property
of addition

$$a + (b + c) = (a + b) + c$$

Associative property
of multiplication

$$a(bc) = (ab)c$$

Distributive property
of multiplication over addition

$$a(b + c) = ab + ac$$

Distributive property
of multiplication over subtraction

$$a(b - c) = ab - ac$$

NON-ALYOWABLE

METRIC SYSTEM

kilo	hecto	deca		deci	centi	milli

NON-ALLOWABLE

METRIC SYSTEM CONVERSIONS

1000	100	10	1	0.1	0.01	0.001
kilo	hecto	deca		deci	centi	milli
km	hm	dam	m	dm	cm	mm
kg	hg	dag	g	dg	cg	mg
kl	hl	dal	l	dl	cl	ml

NON-ALLOWABLE

COMMON UNITS used with the International System

UNITS OF MEAS.	ABBREV.	RELATION
meter	m	length
hectare	ha	area
ton	t	mass
kilogram	kg	mass
nautical mile	M	distance (navigation)
knot	kn	speed (navigation)
liter	L	volume or Capacity
second	s	time
hertz	Hz	frequency
candela	cd	luminous intensity
degree Celsius	°C	temperature
kelvin	K	thermodynamic temperature
pascal	Pa	pressure, stress
joule	J	energy, work
newton	N	force
watt	W	power, radiant flux
ampere	A	electric current
volt	V	electric potential
ohm	Ω	electric resistance
coulomb	C	electric charge

NOT AVAILABLE

MEASUREMENT CONVERSIONS

LENGTH / AREA				WEIGHT / CAPACITY			
to go from		to	multiply by	to go from		to	multiply by
cm	→	in	0.3937	g	→	oz	0.0353
in	→	cm	2.54	oz	→	g	28.35
m	→	ft	3.2808	kg	→	lbs	2.2046
km	→	mi	0.6214	t	→	T	1.1023
mi	→	km	1.609	T	→	t	0.9072
m^2	→	ft^2	10.76	ml	→	fl oz	0.0338
ft^2	→	m^2	0.0929	fl oz	→	ml	29.575
km^2	→	mi^2	0.3861	L	→	US gal	0.2642
mi^2	→	km^2	2.59	US gal	→	L	3.785

NON-ALLOWABLE

METRIC SYSTEM

1 m^2	= 10,000 cm^2
1 hectare (ha)	= 10,000 m^2
1 km^2	= 100 ha
1 metric ton (t)	= 1,000 kg

NON-ALLOWABLE

ENGLISH SYSTEM

Length

1 foot (ft)	= 12 inches (in)	= 1'	= 12"
1 yard (yd)	= 3 feet	= 36 inches	
1 mile (mi)	= 1,760 yards	= 5,280 feet	

Liquid

1 tablespoon (T)	= 3 teaspoons (t)		
1 cup (c)	= 16 T	= 8 fluid ounces (fl oz)	
1 pint (pt)	= 2 c		
1 quart (qt)	= 2 pt	= 4 c	= 32 fl oz
1 gallon (gal)	= 4 qt		

Weight

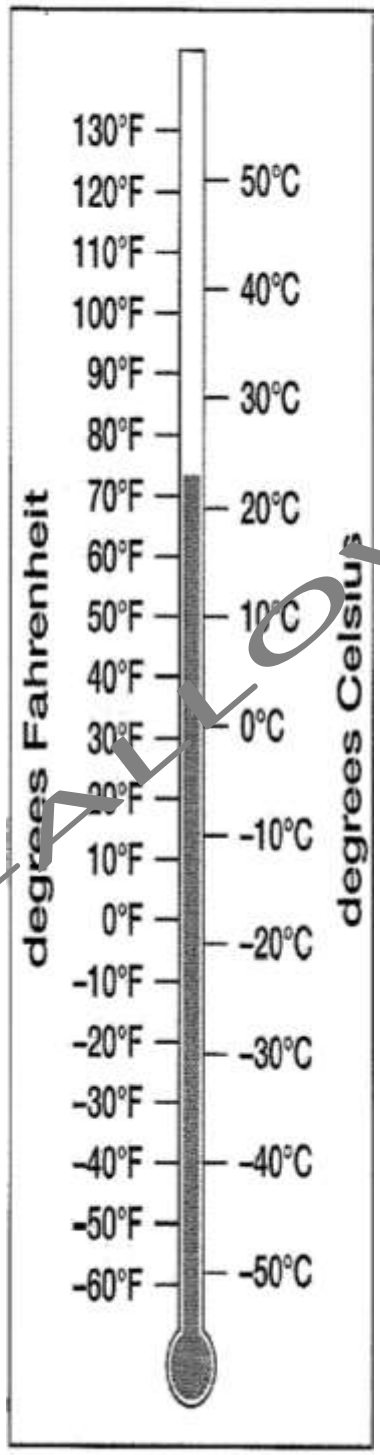
1 pound (lb)	= 16 ounces (oz)
1 ton (t)	= 2000 pounds

Area

1 ft^2	= 144 in^2
1 yd^2	= 9 ft^2
1 acre	= 4,840 yd^2

NON-FLOWABLE

TEMPERATURE



NON-ALLOWABLE

TEMPERATURE CONVERSIONS

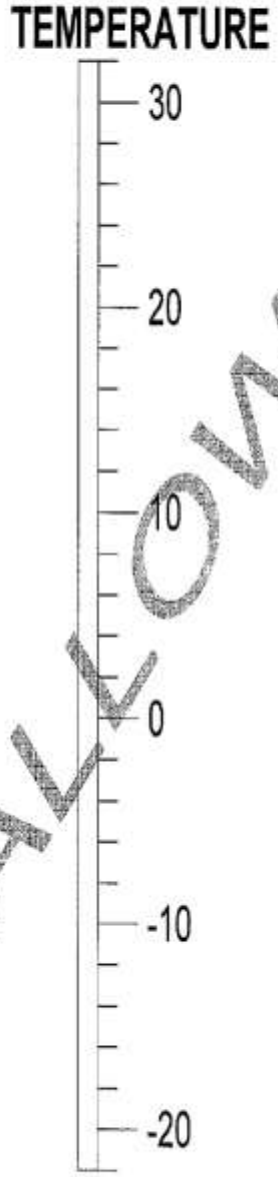
°C → °F

n × 1.8; add 32

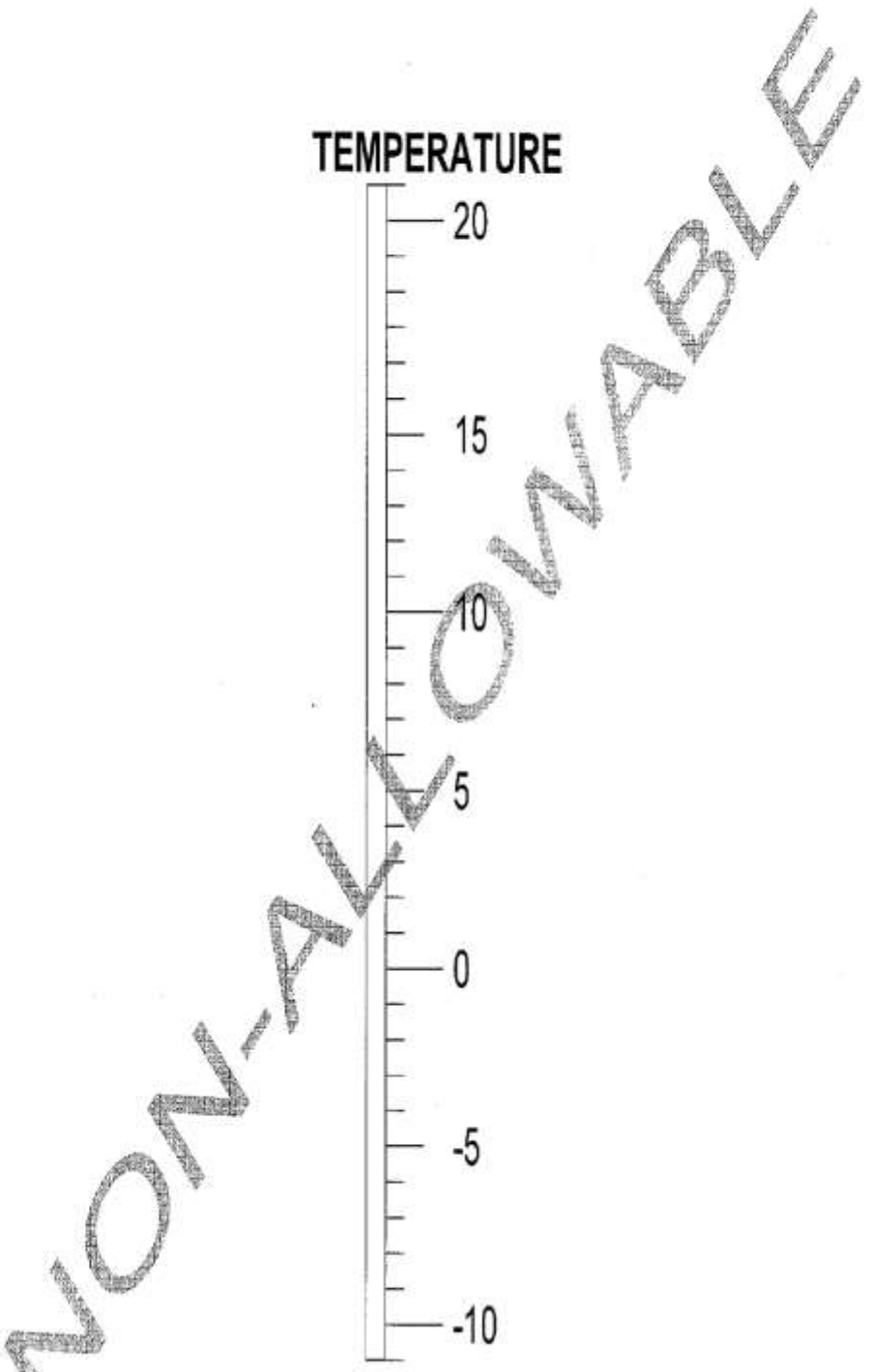
°F → °C

n – 32; multiply by 0.5555

NON-ALLOWABLE



NON-ALLOWABLE



NON-ALLOWABLE

PLACE VALUE

hundred millions ten millions millions
hundred thousands ten thousands thousands
hundreds tens ones
tenths hundredths thousandths

NON-REVIEWABLE

COMPASS

The sun rises in the east and sets in the west.

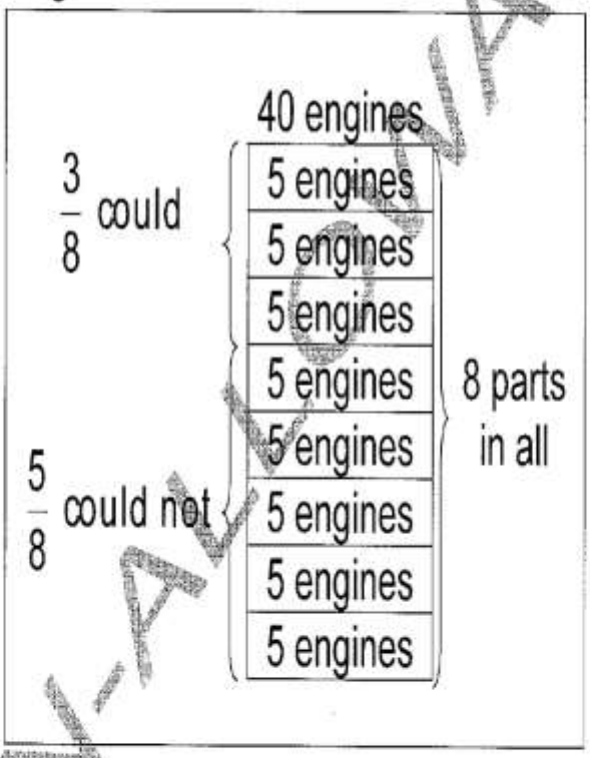
NON-ALLOWABLE

HALF OF A NUMBER

To find half of a number, divide by two.

NON-ALLOWABLE

$\frac{3}{8}$ OF THE 40 ENGINES COULD



NON-AVAILABLE

FIND THE MISSING NUMBERS

(Word Problem Thinking Patterns: Sketch the pattern. Record the information.)

SOME, SOME MORE	Some	← If missing, subtract.
	+ Some more	← If missing, subtract.
	Total	← If missing, add.
SOME WENT AWAY	Some	← If missing, add.
	- Some went away	← If missing, subtract.
	What's left	← If missing, subtract.
LARGER, SMALLER, DIFFERENCE	Larger	← If missing, add.
	- Smaller	← If missing, subtract.
	Difference	← If missing, subtract.
LATER, EARLIER, DIFFERENCE	Later	← If missing, add.
	- Earlier	← If missing, subtract.
	Difference	← If missing, subtract.
EQUAL GROUPS	Number in each group	← If missing, divide.
	× Number of groups	← If missing, divide.
	How many	← If missing, multiply.

NON-ALLOWABLE

PRIME NUMBERS

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

NOT AVAILABLE

DIVISIBILITY RULES

A whole number is divisible by...

2	if the last digit is 0,2,4,6,8.	6	if the number is divisible by both 2 and 3.
3	if the sum of the digits is divisible by 3.	9	if the sum of the digits is divisible by 9.
5	if the last digit is 5 or 0.	10	if the last digit is 0.

NON-ALLOWABLE

SYMBOLS

Addition	+	Equal	=	Percent	%
Angle	∠	Greater than	>	Perpendicular	⊥
Arc	⌒	Less than	<	Pi	π
Decimal point	.	Line segment	—	Ray	→
Degree	°	Multiplication	×	Right Angle	⌞
Division	÷	Number	#	Set	{ }
Dollar	$	Parallel	∥	Subtraction	−

NON-ALLOWABLE

NUMBERS

Prime Number:	A whole number which has only two factors, itself and 1.	Examples: 2, 3, 7, 11, 13, 17.
Common Factor:	A number that is a factor of two or more numbers.	Examples: 1, 2, and 4 are common factors of 12 and 16.
Greatest Common Factor:	The greatest number that is a factor of two or more numbers	Example: 4 is the greatest common factor of 12 and 16.
Least Common Multiple:	The smallest number that is a multiple of two or more numbers.	Example: 12 is the least common multiple of 2, 3, 4, and 6.

NON-ALLOWABLE

METRIC SYSTEM

Length		
	1 centimeter (cm)	= 10 millimeters (mm)
	1 decimeter (dm)	= 100 millimeters
	1 decimeter	= 10 centimeters
	1 meter (m)	= 1000 millimeters
	1 meter	= 100 centimeters
	1 meter	= 10 decimeters
	1 decameter (dkm)	= 10 meters
	1 kilometer (km)	= 1000 meters
Liquid		
	1 liter (L)	= 1000 milliliters (mL)
Weight		
	1 gram (g)	= 1000 milligrams (mg)
	1 kilogram (kg)	= 1000 grams

NOT AVAILABLE

ROMAN NUMERALS

I =	1
V =	5
X =	10
L =	50
C =	100
D =	500
M =	1000

NON-AVAILABLE

CONVERSIONS

Small to Large	Multiply
Large to Small	Divide

NON-ALLOWABLE

COMMON SQUARES AND SQUARE ROOTS

n	n^2	$\sqrt{n}$	n	n^2	$\sqrt{n}$
1	1	1	15	225	3.873
2	4	1.414			
3	9	1.732	20	400	4.472
4	16	2			
5	25	2.236	25	625	5
6	36	2.449			
7	49	2.646	100	10000	10
8	64	2.828			
9	81	3	1/2	1/4	0.707
10	100	3.162	1/4	1/16	1/2
11	121	3.317			
12	144	3.464			

NONALLOWABLE

PROBLEM SOLVING STEPS

1	UNDERSTAND & EXPLORE	First things first: find out what the real problem is.
2	GUESS & CHECK	Make a reasonable guess and check it out; try again if necessary.
3	SOLVE THE PROBLEM	Sort out all the information, draw a picture, graph or table, and write it out in math. Sometimes it may help to work backward!
4	CHECK YOUR ANSWER	Think logically... does your solution make sense? Try it out if you can.

NON-ALLOWABLE

EXPANDING

$a(b+c) = ab + ac$

$(a+b)^2 = a^2 + 2ab + b^2$

$(a-b)^2 = a^2 - 2ab + b^2$

$(a+b)(c+d) = ac + ad + bc + bd$

$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$

$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$

FACTORING

$a^2 - b^2 = (a+b)(a-b)$

$a^2 + 2ab + b^2 = (a+b)^2$

$a^3 + b^3 = (a+b)(a^2-ab+b^2)$

$a^3b - ab = ab(a^2-1) = ab(a+1)(a-1)$

$a^2 - 2ab + b^2 = (a-b)^2$

$a^3 - b^3 = (a-b)(a^2+ab+b^2)$

NON-ALLOWABLE

QUADRATIC FORMULA

The solution for a quadratic equation

$ax^2+bx+c=0$

is given by the

quadratic formula:

$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

NON-ALLOWABLE

PROPERTIES OF EXPONENTS

If $a, b \in R$, $a, b \geq 0$, and p, q, r, s are $\in Q$, then:

1	$a^r a^s = a^{r+s}$	5	$\left(\frac{a}{b}\right)^r = \frac{a^r}{b^r} \; (b \neq 0)$
2	$\frac{a^r}{a^s} = a^{r+s}$	6	$a^0 = 1 \; (a \neq 0)$
3	$(a^r)^s = a^{rs}$	7	$a^{-r} = \frac{1}{a^r} \; (a \neq 0)$
4	$(ab)^r = a^r b^r$	8	$a^{\frac{r}{s}} = \sqrt[s]{a^r} \quad a^{\frac{1}{2}} = \sqrt{a} \quad a^{\frac{1}{3}} = \sqrt[3]{a}$

$\left.\begin{array}{l} 1 \\ 2 \end{array}\right\} \frac{a^p a^q}{a^r} = a^{p+q-r}$

NON-ALLOWABLE

PROPERTIES OF LOGARITHMS

$\log(xy) = \log x + \log y$	$\log\left(\frac{x}{y}\right) = \log x - \log y$
$\log y^r = r \log x$	
$\log x = n \leftrightarrow x = 10^n$ (common log)	$\pi \approx 3.14159265$
$\log_a x = n \leftrightarrow x = a^n$ (log to the base a)	$e \approx 2.71828183$
$\ln x - n \leftrightarrow x = e^n$ (natural log)	

NON-ALLOWABLE