Testing Dates
2014 School Year

Paper/Pencil Multiple-Choice Testing
April 10–May 2, 2014

Online Mathematics and Reading Testing
April 10–May 7, 2014

Acknowledgement
Front cover image copyright © Getty Images/PhotoDisc, Inc. Collection.

Developed and published under contract with the Oklahoma State Department of Education by CTB/McGraw-Hill LLC, 20 Ryan Ranch Road, Monterey, California 93940-5703. Copyright © 2014 by the Oklahoma State Department of Education. All rights reserved. Only State of Oklahoma educators and citizens may copy, download and/or print the document, located online at www.ok.gov/sde/test-support-teachers-and-administrators. Any other use or reproduction of this document, in whole or in part, requires written permission of the Oklahoma State Department of Education and the publisher.
Dear Parent/Guardian and Student:

Soon students will be participating in the Oklahoma Core Curriculum Tests. These tests are designed to measure knowledge in Mathematics and Reading.

Parents/guardians will receive a report on their child’s performance on the tests. This report will indicate their child’s areas of strength as well as areas needing improvement.

This guide provides practice questions, objectives covered in the tests, and a list of test-taking tips. Parents/guardians are encouraged to discuss these materials with their child to help prepare them for the tests. During the test week, it is very important for students to get plenty of sleep, eat a good breakfast, and arrive at school on time.

If you have any questions about the Oklahoma Core Curriculum Tests, please contact your local school or the State Department of Education.

Sincerely,

Your State Superintendent of Public Instruction
# Table of Contents

- **THE OKLAHOMA CORE CURRICULUM TESTS** .......................................................... 1
- **TEST-TAKING TIPS** .................................................................................................. 2
- **THE MULTIPLE-CHOICE TESTS** ........................................................................... 3
  - Oklahoma Academic Standards ............................................................................. 3
    - Mathematics ........................................................................................................ 3
    - Reading .............................................................................................................. 8
- **MULTIPLE-CHOICE PRACTICE TESTS** ................................................................. 12
  - Mathematics Practice Test .................................................................................. 13
  - Reading Practice Test ......................................................................................... 22
- **PREPARING FOR TESTING TO THE STANDARDS FOR COLLEGE AND CAREER READINESS** .......................................................... 33
- **ANSWER KEYS** .................................................................................................... 39
- **ANSWER SHEET** .................................................................................................. INSIDE BACK COVER
The Oklahoma Core Curriculum Tests

The Governor, state legislators, and other Oklahoma elected officials have committed themselves to ensuring that all Oklahoma students receive the opportunity to learn the skills required to succeed in school and in the workplace. To achieve this goal, schools must prepare every Oklahoma student for colleges, universities, and jobs that require new and different skills.

Under the direction of the Legislature, Oklahoma teachers, parents, and community leaders met to agree upon the skills that students are expected to master by the end of each grade. The results of their efforts, Oklahoma Academic Standards, provide the basis for Oklahoma’s core curriculum.

In addition, the Legislature established the criterion-referenced test component of the Oklahoma School Testing Program to measure students’ progress in mastering the Oklahoma Academic Standards and objectives. Tests have been developed by national test publishers that specifically measure the Oklahoma Academic Standards and objectives at Grade 6. Teachers from throughout Oklahoma have been involved in the review, revision, and approval of the questions that are included in the tests.

The Oklahoma Core Curriculum Tests (OCCT), a criterion-referenced testing program, compares a student’s performance with performance standards established by the State Board of Education. These standards, referred to as the Oklahoma Performance Index, or OPI, identify specific levels of performance required on each test. These standards are based upon reviews from groups of Oklahoma educators and citizens who evaluated the tests and made recommendations.

In the content areas of Mathematics and Reading, a student’s test performance is reported according to one of four performance levels: Advanced, Proficient, Limited Knowledge, and Unsatisfactory.

This year, students in Grade 6 will take multiple-choice tests in Mathematics and Reading.

This guide provides an opportunity for parents, students, and teachers to become familiar with how these skills in these subject areas will be assessed. It presents general test-taking tips, lists the Oklahoma Academic Standards and objectives that are eligible for assessment in a statewide testing program, gives a blueprint for the tests, and provides practice test questions. Finally, information regarding preparing for testing to the Standards for College and Career Readiness is presented.
Test-Taking Tips

The following tips provide effective strategies for taking the Oklahoma Core Curriculum Tests. Test-taking skills cannot replace studying and practice based on the Oklahoma Academic Standards and objectives, which serve as the foundation for the tests. To access a practice test, go to www.ctb.com/ok and click on the Experience Online Testing (Student) button.

General Test-Taking Tips:

DO... read this guide carefully and complete the practice tests.

DO... make sure you understand all test directions. If you are uncertain about any of the directions, raise your hand to ask questions before testing has started.

DON’T... wait until the last minute to study for the test. These tests cover a lot of material, and you cannot learn it all in a short amount of time.

DON’T... worry about the tests. Students who are calm and sure of themselves do better on tests.

Tips for the Multiple-Choice Tests:

DO... read each question and every answer choice carefully. Choose the best answer for each question.

DO... check your work if you finish your test early. Use the extra time to answer any questions that you skipped.

DO... read the selections on the Reading test carefully.

DO... be sure that you have seen all four answer choices before making your selection. On an online test, this may require you to use the scroll bar on the right side of the test question.

DO... remember that if you cannot finish the test within the time allotted, you will be given additional time to complete the test.

DON’T... spend too much time on any one question. If a question takes too long to answer, skip it and answer the other questions. You can return to any skipped questions after you have finished all other questions.

DON’T... attempt to leave the online testing system by closing the window by clicking on the X. Doing so will result in termination of the test.
**The Multiple-Choice Tests**

Each year, students in Grade 6 take multiple-choice tests in Mathematics and Reading.

Each multiple-choice subject test is meant to be administered in a separate session. Students should have enough time to complete all sessions. Students may be given additional time if needed, but additional time will be given as an extension of the same testing period, not at a different time.

Students who finish early need to make sure their work is complete and are encouraged to check and verify their answers prior to closing their test books. Students will not be allowed to reopen their test books once they have been closed for a given test session.

The following sections

- list the Oklahoma Academic Standards that are eligible for multiple-choice testing in each subject area.
- reproduce the student directions.
- present practice test questions for each subject.
- provide information about preparing for testing to the Standards for College and Career Readiness.

**Oklahoma Academic Standards**

The Oklahoma Academic Standards that are eligible for testing in the Grade 6 multiple-choice tests for each subject area are presented below. They represent the portion of the Oklahoma core curriculum in these subject areas that is assessed on the Oklahoma Core Curriculum Tests. The skills are grouped into standards with specific objectives listed under each one. Student performance on the multiple-choice tests is reported at the standard and objective levels in all subject areas. In Mathematics, student performance is reported by the content standards.

Please note that not all Oklahoma Academic Standards and objectives are appropriate for the statewide assessment. This guide includes only the Oklahoma Academic Standards and objectives that are assessed by the OCCT and are based on the 2009 revision for Mathematics and the 2010 revision for Reading.

**Mathematics (Process) — Grade 6**

The National Council of Teachers of Mathematics (NCTM) has identified five process standards: Problem Solving, Reasoning and Proof, Communication, Connections, and Representation. Active involvement by students using these processes is likely to broaden mathematical understandings and lead to increasingly sophisticated abilities required to meet mathematical challenges in meaningful ways.

**Process Standard 1: Problem Solving**

1. Develop and test strategies to solve practical, everyday problems which may have single or multiple answers.
2. Use technology to generate and analyze data to solve problems.
3. Formulate problems from situations within and outside of mathematics and generalize solutions and strategies to new problem situations.
4. Evaluate results to determine their reasonableness.
5. Apply a variety of strategies (e.g., restate the problem, look for a pattern, diagrams, solve a simpler problem, work backwards, trial and error) to solve problems, with emphasis on multistep and nonroutine problems.
6. Use oral, written, concrete, pictorial, graphical, and/or algebraic methods to model mathematical situations.

**Process Standard 2: Communication**
1. Discuss, interpret, translate (from one to another) and evaluate mathematical ideas (e.g., oral, written, pictorial, concrete, graphical, algebraic).
2. Reflect on and justify reasoning in mathematical problem solving (e.g., convince, demonstrate, formulate).
3. Select and use appropriate terminology when discussing mathematical concepts and ideas.

**Process Standard 3: Reasoning**
1. Identify and extend patterns and use experiences and observations to make suppositions.
2. Use counterexamples to disprove suppositions (e.g., all squares are rectangles, but are all rectangles squares?).
3. Develop and evaluate mathematical arguments (e.g., agree or disagree with the reasoning of other classmates and explain why).
4. Select and use various types of reasoning (e.g., recursive [loops], inductive [specific to general], deductive [general to specific], spatial, and proportional).

**Process Standard 4: Connections**
1. Apply mathematical strategies to solve problems that arise from other disciplines and the real world.
2. Connect one area or idea of mathematics to another (e.g., relate equivalent number representations to each other, relate experiences with geometric shapes to understanding ratio and proportion).

**Process Standard 5: Representation**
1. Use a variety of representations to organize and record data (e.g., use concrete, pictorial, and symbolic representations).
2. Use representations to promote the communication of mathematical ideas (e.g., number lines, rectangular coordinate systems, scales to illustrate the balance of equations).
3. Develop a variety of mathematical representations that can be used flexibly and appropriately (e.g., base-10 blocks to represent fractions and decimals, appropriate graphs to represent data).
4. Use a variety of representations to model and solve physical, social, and mathematical problems (e.g., geometric objects, pictures, charts, tables, graphs).
Mathematics (Content)—Grade 6

Standard 1: Algebraic Reasoning: Patterns and Relationships—The student will use algebraic methods to describe patterns, simplify and write algebraic expressions and equations, and solve simple equations in a variety of contexts.

1. Generalize and extend patterns and functions using tables, graphs, and number properties (e.g., number sequences, prime and composite numbers, recursive patterns like the Fibonacci numbers).
2. Write algebraic expressions and simple equations that correspond to a given situation.
3. Use substitution to simplify and evaluate algebraic expressions (e.g., if \( x = 5 \), evaluate \( 3 - 5x \)).
4. Write and solve one-step equations with one variable using number sense, the properties of operations, and the properties of equality (e.g., \( \frac{1}{3} x = 9 \)).

Standard 2: Number Sense and Operation—The student will use numbers and number relationships to solve a variety of problems. The student will estimate and compute with integers, fractions, and decimals.

1. Number Sense: Convert, compare, and order decimals, fractions, and percents using a variety of methods.
2. Number Operations
   a. Multiply and divide fractions and mixed numbers to solve problems using a variety of methods.
   b. Multiply and divide decimals with one- or two-digit multipliers or divisors to solve problems.
   c. Estimate and find solutions to single and multi-step problems using whole numbers, decimals, fractions, and percents (e.g., \( \frac{7}{8} + \frac{8}{9} \) is about 2; \( 3.9 + 5.3 \) is about 9).
   d. Use the basic operations on integers to solve problems.
   e. Build and recognize models of multiples to develop the concept of exponents and simplify numerical expressions with exponents and parentheses using order of operations.

Standard 3: Geometry—The student will use geometric properties and relationships to recognize, describe, and analyze shapes and representations in a variety of contexts.

1. Compare and contrast the basic characteristics of three-dimensional figures (pyramids, prisms, cones, and cylinders).
2. Compare and contrast congruent and similar figures.
3. Identify the characteristics of the rectangular coordinate system and use them to locate points and describe shapes drawn in all four quadrants.

Standard 4: Measurement—The student will use measurements within the metric and customary systems to solve problems in a variety of contexts.

1. Use formulas to find the circumference and area of circles in terms of pi.
2. Convert, add, or subtract measurements within the same system to solve problems (e.g., \( 9'8'' + 3'6'' \), \( 150 \) minutes = _____ hours and _____ minutes, \( 6 \) square inches = ____ square feet).
Standard 5: Data Analysis—The student will use data analysis, probability, and statistics to interpret data in a variety of contexts.

1. Data Analysis: Organize, construct displays, and interpret data to solve problems (e.g., data from student experiments, tables, diagrams, charts, graphs).

2. Probability: Use the fundamental counting principle on sets with up to five items to determine the number of possible combinations.

3. Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data (with and without outliers) and understand why a specific measure provides the most useful information in a given context.
The Test Blueprint reflects the degree to which each standard and objective of the Oklahoma Academic Standards is represented on the test. The overall distribution of operational items in a test form is intended to look as follows:

<table>
<thead>
<tr>
<th>Standards and Objectives</th>
<th>Ideal Number of Items</th>
<th>Ideal Percentage of Items</th>
<th>Reporting Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Algebraic Reasoning: Patterns and Relationships</td>
<td>13</td>
<td>26%</td>
<td>13</td>
</tr>
<tr>
<td>1.1 Algebra Patterns</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1.2 Expressions and Equations</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1.3 Number Properties</td>
<td>3</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>1.4 Solving Equations</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0 Number Sense and Operation</td>
<td>15</td>
<td>30%</td>
<td>15</td>
</tr>
<tr>
<td>2.1 Number Sense</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>2.2 Number Operations</td>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>3.0 Geometry</td>
<td>8</td>
<td>16%</td>
<td>8</td>
</tr>
<tr>
<td>3.1 Three Dimensional Figures</td>
<td>2</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>3.2 Congruent and Similar Figures</td>
<td>2</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>3.3 Coordinate Geometry</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0 Measurement</td>
<td>7</td>
<td>14%</td>
<td>7</td>
</tr>
<tr>
<td>4.1 Circles</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>4.2 Conversions</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>5.0 Data Analysis</td>
<td>7</td>
<td>14%</td>
<td>7</td>
</tr>
<tr>
<td>5.1 Data Analysis</td>
<td>3</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>5.3 Central Tendency</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2 Probability</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Test</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

- A minimum of 4 items is required to report results for an objective, and a minimum of 6 items is required to report a standard.
- Percentages are approximations and may result in a sum other than 100 due to rounding.
- Objectives have been grouped for reporting purposes only.
- The Oklahoma Academic Standards correspond to the PASS standards.
Reading—Grade 6

Reading/Literature: The student will apply a wide range of strategies to comprehend, interpret, evaluate, appreciate, and respond to a wide variety of texts.

Standard 1: Vocabulary—The student will develop and expand knowledge of words and word meanings to increase vocabulary.

1. Words in Context
   a. Use knowledge of word parts and word relationships, as well as context clues (the meaning of the text around a word), to determine the meaning of technical and specialized vocabulary and to understand the precise meaning of grade-level-appropriate words in fiction and nonfiction texts.
   b. Use prior experience and context to analyze and explain the figurative use of words, similes (comparisons that use like or as: The Snowplow Reared Up Like a Stallion), metaphors (implied comparisons: Peace is a Sunrise), and multiple meaning words.

2. Word Origins
   a. Recognize the origins and meanings of foreign words frequently used in English. Example: Understand foreign words that are often used in English such as spaghetti (Italian) and rodeo (Spanish).
   b. Apply knowledge of root words to determine the meaning of unknown words within a passage.
   c. Use word origins, including knowledge of less common roots (graph = writing, logos = the study of) and word parts (auto = self, bio = life) from Greek and Latin to analyze the meaning of complex words (autograph, autobiography, biology).

Standard 3: Comprehension/Critical Literacy—The student will interact with the words and concepts in the text to construct an appropriate meaning.

Read and understand grade-level-appropriate material. Describe and connect the essential ideas, arguments, and perspectives of the text by using the knowledge of text structure, organization, and purpose. At Grade 6, in addition to regular classroom reading, students read a variety of grade-level-appropriate narrative (story) and expository (informational and technical) texts, including classic and contemporary literature, poetry, magazines, newspapers, reference materials, and online information as well as expository (informational and technical) texts.

1. Literal Understanding
   a. Use prereading strategies independently (to preview, activate prior knowledge, predict content of text, formulate questions that might be answered by the text, establish purpose for reading).
   b. Read and comprehend both fiction and nonfiction that is appropriately designed for sixth grade.
   c. Recognize main ideas presented in a particular segment of text; identify and assess evidence that supports those ideas. Example: Use a graphic organizer to compare an advertisement to the actual product label.
   d. Use the text’s structure or progression of ideas, such as cause and effect or chronology to organize or recall information.
2. Inferences and Interpretation
   a. Draw inferences and conclusions about text and support them with textual evidence and prior knowledge.
   b. Make inferences or draw conclusions about characters’ qualities and actions (i.e., based on knowledge of plot, setting, characters’ motives, characters’ appearances, other characters’ responses to a character).

3. Summary and Generalization
   a. Summarize and paraphrase information including the main idea and significant supporting details of a reading selection.
   b. Make generalizations based on information gleaned from text.
   c. Support reasonable statements and conclusions by reference to relevant aspects of text and examples.
   d. Clarify understanding of text information in different ways (e.g., timelines, outlines, graphic organizer) to support and explain ideas.

4. Analysis and Evaluation
   a. Evaluate the believability of a character and the impact they have on the plot.
   b. Analyze the main problem or conflict of the plot, the effect of the qualities of the characters and explain how the conflict is resolved.
   c. Contrast the actions, motives, and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.
   d. Make observations, connections, and react, speculate, interpret, and raise questions in analysis of texts.
   e. Recognize and evaluate structural patterns found in a literary work (e.g., cause/effect, problem/solution, sequential order).
   f. Distinguish among stated facts, inferences supported by evidence, and opinions in text.

Standard 4: Literature—The student will read, construct meaning, and respond to a wide variety of literary forms.

Read and respond to grade-level-appropriate historically or culturally significant works of literature that reflect and enhance a study of history and social science. Clarify ideas and connect them to other literary works.

1. Literary Genres—The student will demonstrate a knowledge of and an appreciation for various forms of literature.
   a. Analyze the characteristics of genres, including short story, novel, drama, poetry, and nonfiction.
   b. Analyze characteristics of subgenres, including autobiography, biography, fable, folktale, mystery, and myth.
2. Literary Elements—The student will demonstrate knowledge of literary elements and techniques and how they affect the development of a literary work.
   a. Identify and explain elements of fiction, including plot, conflict, character, setting, and theme.
   b. Identify and explain internal and external conflict in the development of a story.
   c. Determine the author’s purpose (persuade, inform, entertain) and point of view, whether explicitly or implicitly stated and how it affects the text.
   d. Connect, compare, and contrast ideas, themes, and issues across texts.

3. Figurative Language and Sound Devices—The student will identify figurative language and sound devices and will analyze how they affect the development of a literary work.
   a. Identify and explain figurative language, including symbolism, imagery, metaphor, personification, simile, and idioms.
   b. Identify and explain sound devices, including alliteration, onomatopoeia, and rhyme.
   c. Interpret poetry and recognize poetic styles (e.g., rhymed, free verse, and patterned [cinquain, diamante]).
   d. Identify and describe the function and effect of common literary devices, such as imagery, and symbolism.
      - Imagery: the use of language to create vivid pictures in the reader’s mind.
      - Symbolism: the use of an object to represent something else; for example, a dove might symbolize peace.

Standard 5: Research and Information—The student will conduct research and organize information.

1. Accessing Information—The student will select the best source for a given purpose.
   a. Use library catalogs and computer databases to locate sources for research topics.
   b. Access information from a variety of primary and secondary sources to gather information for research topics.
   c. Use organizational strategies as an aid to comprehend increasingly difficult content material.
   d. Note instances of persuasion, propaganda, faulty reasoning, or misleading information in text.
   e. Use reference features of printed text, such as citations, endnotes, and bibliographies, to locate relevant information about a topic.

2. Interpreting Information—The student will analyze and evaluate information from a variety of sources.
   a. Record, organize, and display relevant information from multiple sources in systemic ways (e.g., outlines, graphic organizers, or note cards).
   b. Identify and credit the reference sources used to gain information.
   c. Determine the appropriateness of an information source for a research topic.
   d. Summarize information from multiple sources into a research paper.
The Test Blueprint reflects the degree to which each standard and objective of the Oklahoma Academic Standards is represented on the test. The overall distribution of operational items in a test form is intended to look as follows:

<table>
<thead>
<tr>
<th>Standards and Objectives</th>
<th>Ideal Number of Items</th>
<th>Ideal Percentage of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Vocabulary</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>1.1 Words in Context</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1.2 Word Origins</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3.0 Comprehension/Critical Literacy</td>
<td>20</td>
<td>40%</td>
</tr>
<tr>
<td>3.1 Literal Understanding</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3.2 Inferences and Interpretation</td>
<td>4–6</td>
<td></td>
</tr>
<tr>
<td>3.3 Summary and Generalization</td>
<td>4–6</td>
<td></td>
</tr>
<tr>
<td>3.4 Analysis and Evaluation</td>
<td>4–6</td>
<td></td>
</tr>
<tr>
<td>4.0 Literature</td>
<td>14</td>
<td>28%</td>
</tr>
<tr>
<td>4.1 Literary Genres</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4.2 Literary Elements</td>
<td>4–6</td>
<td></td>
</tr>
<tr>
<td>4.3 Figurative Language/Sound Devices</td>
<td>4–6</td>
<td></td>
</tr>
<tr>
<td>5.0 Research and Information</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>5.1 Accessing Information</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5.2 Interpreting Information</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Total Test</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

- A minimum of 4 items is required to report results for an objective, and a minimum of 6 items is required to report a standard.
- Percentages are approximations and may result in a sum other than 100 due to rounding.
- The Oklahoma Academic Standards correspond to the PASS standards.

**Scoring Criteria**

Scoring criteria focus on the clear understanding of the reading process, effective understanding and application of responding to text, and effective understanding and analysis of information and research.
Multiple-Choice Practice Tests

Student Directions

1. Multiple-Choice Practice Tests for each of the subjects assessed are provided in the sections that follow. Each practice test includes 15 questions that are similar to the questions on the test.

2. Mark your answers to the practice test questions on the answer sheet located on the inside back cover of this guide. Carefully tear off the answer sheet where it is perforated.

3. Go to the Mathematics practice test. Read the directions at the top of the page.

4. Look at Sample A in the box. Read it to yourself and think of the answer. Now look at the Mathematics section of the Answer Sheet on the inside back cover. The correct answer to Sample A is indicated.

5. Read Sample B of the Mathematics practice test. Mark your answer to Sample B. Next answer the 15 practice questions. For any of the tests, you may underline, mark, make notes, or work out problems in your test book. Mark only one answer for each question.

   **Note for students:**
   The practice tests in the following section are short versions of the type of multiple-choice tests you will be taking. Follow the instructions as you take the practice tests on the pages that follow.

6. After you finish the Mathematics practice test, go on to the Reading practice test. Read the directions to yourself and then answer the practice questions.

7. When you are finished, check your answers against the Answer Keys. The standards and objectives for each question are also shown.
DIRECTIONS
Read each question and choose the best answer. Find the question number on the answer sheet that matches the question number on the Mathematics practice test. Mark your answer in the Mathematics section of the answer sheet.

The correct answer for Sample A has been filled in on the answer sheet to show how to mark your answers. Mark your answer for Sample B.

Sample A

James created this pattern of four numbers by adding 3 each time.

2, 5, 8, 11, . . .

What is the next number in James’ pattern?

A  12
B  13
C  14
D  15

Sample B

This list shows the 5 gymnastic scores for the Park High School team.

6.2, 6.3, 5.3, 6.4, 6.1

Which of these lists the scores in order from least to greatest?

A  5.3, 6.4, 6.3, 6.2, 6.1
B  5.3, 6.1, 6.2, 6.3, 6.4
C  6.4, 6.3, 6.2, 6.1, 5.3
D  6.4, 5.3, 6.3, 6.2, 6.1
1. Dale used these steps to form a number pattern.

   1. The first term is 3.
   2. The second term is 5.
   3. Each term after the second is the sum of the two terms just before it.

   The list shows the first five terms in Dale’s pattern.

   \[3, 5, 8, 13, 21, \ldots\]

   What are the next 3 terms?

   A  27, 34, 42
   B  29, 37, 45
   C  34, 55, 89
   D  34, 55, 99

2. What is the value of this expression when \( b = 5 \)?

   \[b + (b^2 \cdot 3) - 5\]

   A  75
   B  80
   C  85
   D  90

3. One winter in Enrique’s home state, it snowed 39 inches in \(6\frac{1}{2}\) days. What is that rate in inches of snow per day?

   A  4 inches per day
   B  5 inches per day
   C  6 inches per day
   D  7 inches per day
The table shows the number of pies eaten by the top four contestants in a middle school pie-eating contest.

<table>
<thead>
<tr>
<th>Contestant Name</th>
<th>Number of Pies Eaten</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ali</td>
<td>5 $\frac{1}{2}$</td>
</tr>
<tr>
<td>Brett</td>
<td>5 $\frac{1}{4}$</td>
</tr>
<tr>
<td>Lois</td>
<td>5 $\frac{2}{3}$</td>
</tr>
<tr>
<td>Zeke</td>
<td>5 $\frac{3}{8}$</td>
</tr>
</tbody>
</table>

Which lists the number of pies eaten in order from least to greatest?

A $\frac{5}{4}, \frac{5}{1}, \frac{3}{2}, \frac{2}{3}$

B $\frac{5}{3}, \frac{5}{2}, \frac{3}{8}, \frac{1}{4}$

C $\frac{5}{3}, \frac{5}{4}, \frac{3}{8}, \frac{1}{2}$

D $\frac{5}{4}, \frac{3}{8}, \frac{1}{2}, \frac{2}{3}$

Sandra bought four bags of nails for a carpentry project. The weights of the bags, in pounds (lb), are shown.

$\frac{5}{6}$ lb, $\frac{1}{4}$ lb, $\frac{1}{8}$ lb, $\frac{3}{4}$ lb

Which is closest to the total weight of the four bags of nails?

A 10 lb

B 8 lb

C 6 lb

D 4 lb
What is the value of this expression?

\[4^2 + (6 - 5)^2 \div (4 + 4) - 7\]

A \[\frac{1}{4}\]

B \[\frac{9}{8}\]

C 17

D 25

Which figure has exactly 6 edges?

A triangular prism

B square pyramid

C rectangular prism

D triangular pyramid
Which point best represents the ordered pair \((-3, 6)\) on this coordinate grid?

- A point A
- B point B
- C point C
- D point D
9 Which shows a pair of shapes that appear to be similar but not congruent?

A

B

C

D

10 Don bought a melon that weighed $10\frac{1}{2}$ pounds (lb). What was the weight of the melon in pounds and ounces (oz)?

A 10 lb 2 oz
B 10 lb 5 oz
C 10 lb 8 oz
D 10 lb 12 oz
11. Rosie weighed 7 pounds (lb) 11 ounces (oz) when she was born. Linda weighed 8 lb 10 oz when she was born. What was the total weight of these girls when they were born?

A 15 lb 5 oz
B 16 lb 5 oz
C 16 lb 11 oz
D 17 lb 1 oz

12. The Venn diagram shows the numbers of sixth-grade students who participate in different after-school activities.

Service Club Reader’s Club

What is the total number of students who participate in the Service Club or the Inventor’s Club?

A 12 students
B 19 students
C 21 students
D 23 students
The graph shows the number of miles Johnny jogged each day for two weeks.

<table>
<thead>
<tr>
<th>Day</th>
<th>Number of Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon.</td>
<td>8</td>
</tr>
<tr>
<td>Tues.</td>
<td>6</td>
</tr>
<tr>
<td>Wed.</td>
<td>4</td>
</tr>
<tr>
<td>Thurs.</td>
<td>2</td>
</tr>
<tr>
<td>Fri.</td>
<td>0</td>
</tr>
</tbody>
</table>

Which day had the greatest difference in the number of miles Johnny jogged between week 1 and week 2?

A  Monday
B  Wednesday
C  Thursday
D  Friday
Dana attends a 90-minute dance class one day each week. Last week, she practiced these dances during class.

- 30 minutes on ballet
- 40 minutes on tap
- 20 minutes on jazz

Which display of data is most appropriate to show how Dana spent her practice time in dance class last week?

A. line plot  
B. circle graph  
C. line graph  
D. tally chart

What is the mode for this set of data?

2.4, 1.3, 3.9, 3.1, 4.2, 6.4, 1.4, 4.6, 2.9, 1.5, 3.6, 6.3, 1.3, 5.1

A. 4.6  
B. 2.4  
C. 1.4  
D. 1.3
Susan and Rowdy

1. Susan wanted a dog very badly. She read books about dogs. She even wrote her school research paper on how to train dogs. However, her mother still refused to let her have a dog.

2. One day Susan’s mom said, “Our neighbors need someone to take care of their big, frisky black Labrador, Rowdy, for a week. Would you like to volunteer?”

3. “Oh yes!” Susan said, as she secretly hoped this opportunity would help her convince her mom that she was old enough to get a dog of her own.

4. Rowdy was very lively and active. The information Susan had learned about how to train a dog came in handy. She taught Rowdy to “Get down” and to “Come” when she called him. Once he was trained to obey, then she was able to enjoy playing with him.

5. At the end of the week, the neighbors and Susan’s mom were very impressed. Susan was excited because now her mom had changed her mind and was going to let her get a puppy.

Sample A

This story is most like

A  a tall tale.
B  a folk tale.
C  realistic fiction.
D  historical fiction.
Sample B

This story is **mainly** about how Susan

A  overcomes her fear of dogs.
B  proves she is responsible.
C  helps on her vacation.
D  has fun with a dog.
Like most races, the goal of this challenge is to run the distance just as quickly as possible. The track is only 100 meters (328 feet) long. The eager audience is standing by to watch every single stride. Will a new record be set? Will any of the runners stumble? Who will come in first? The questions may be typical, but this race is a bit unusual. It is held once a year in February in Cape Town, South Africa. The difference with this race is that there are only a few runners at the starting line. They are not dressed in t-shirts, shorts and sneakers. Instead, they are covered in black spots and run on their furry paws.

This event is called the Cheetah Challenge Race. Each year, people come to watch several swift cheetahs race. Which cheetah will be the fastest this year? So far, the fastest cheetah on record is named Nyana-Spier. This extremely fast animal managed to cover the entire 100 meters in approximately six seconds. This set a new world’s record. So far, no cheetah has been able to beat that impressive speed although they keep trying.

Each year, the Cheetah Challenge Race becomes more popular. It is promoted as an exciting event. Parents, children, and school groups come from all over the area to watch and cheer on the runners. The competition begins with people trying to break a few records themselves or perhaps running just to have a good time. More than one thousand runners of all ages and abilities take part in a 5k (3 miles) walk and a 10k (6 miles) run. The top runners in each division get a reward. Everyone who participates in either race takes home a medal. Just as many people come to watch the cheetah portion of the race as come to exercise. While there, they also see a variety of other animals, including lizards, penguins, and butterflies. Each collection represents members of an endangered species like the cheetah. The primary reason that the event is held each year is to raise awareness of animals in danger. Each runner pays an entry fee and a portion of that fee is given to projects that work to protect these species.

There are only a few thousand cheetahs left in the entire world. They are one of the fastest animals on the planet. They can run as fast as it is legal to drive on some highways. Their speed and grace are the main reasons they are so much fun to watch in this annual race. With the funds raised through this event, cheetahs may thrive for years to come.
In paragraph 3, the word popular, as well as words like population and popularity, comes from the Latin word for

A people.
B beloved.
C position.
D crowded.

Which states the purpose of the Cheetah Challenge Race?

A The race becomes more and more popular each year.
B Each year, people come to watch several swift cheetahs race.
C With the funds raised through this event, cheetahs may thrive for years and years to come.
D Their speed and grace are the main reasons they are so much fun to watch in the annual race.

Which source would provide the most recent information about the Cheetah Challenge Race?

A a map of Cape Town, South Africa
B a magazine article: “An Update on the Cheetah Challenge Race”
C a book about the historical customs of Cape Town, South Africa
D a brochure: “The Fastest Cheetah Ever in the Cheetah Challenge Race”
“You’re going to do WHAT?” I asked my best friend, Julie, in alarm.

“I’m going to try out for the cheerleading squad,” she said, eyes fixed on the ground, not meeting my shocked gaze. We had been best friends since second grade and we did everything together. We had made many plans about what we would do this year, but now she was going off on her own. I was sure that if she joined the cheerleading squad, she would become best friends with someone else, and I couldn’t stand the thought.

“Why are you doing this? Do you really want to hang around with those girls instead of me?” I lashed out, my voice filled with anger.

“It’s not about the girls,” Julie said in defense. “It’s about the sport. I want to be on the squad at the high school level because they win scholarships at state competitions, and I have a better chance if I’m on the squad here,” she explained. “Besides,” she added, “it’s not like I’m leaving the country or something.”

“Bon voyage,” I scowled and marched off, leaving Julie standing with a sad look on her face. I had no doubts she would make it—Julie was a superb gymnast who could do backflips across the entire gym without stopping. I didn’t watch the tryouts, but I heard right away that Julie had made the team.

The rest of that week I was miserable, and I avoided Julie in the hall, never once telling her congratulations. Unfortunately, we had several classes together, so I sat stiffly in my seat, watching Julie chat with the other cheerleaders, pursing my lips in disapproval. Occasionally, Julie glanced my way with big, sad eyes, and though I felt bad, I refused to look at her.

I planned to watch the first game and ignore Julie. Instead, I was amazed by the enthusiasm and skill of Julie’s cheering. Although the youngest member of the team, Julie enthusiastically led cheer after cheer. I saw how her face lit up with joy. I was stunned as I realized that she loved the sport. Trying out for the team had nothing to do with me—maybe it was just something she wanted to do. A red stain crept across my face as I thought about how I had ignored her all week—just for following her heart. What type of friend did that? Now that I thought about it, Julie had tried to be friends and I was the one who pushed her away. I had hurt my dearest friend out of fear of being hurt myself.

I approached her shyly, but Julie smiled without hesitation, beckoning me over and making my shame deepen. “Hey, you were really great,” I began, then added quickly, “I’m so sorry I’ve been rude to you about your joining the squad.”

Julie smiled and replied, “A group of us are going for ice cream—why don’t you come along?”

Julie’s quick forgiveness made my eyes burn, but I smiled in return. As I walked toward the cheerleaders, I realized there was room in Julie’s life for all of us. We could save the competition for the game.
4 Which word best describes the narrator in paragraph 3?

A jealous  
B relaxed  
C puzzled  
D confident

5 make (māk) v. made (mād), making, makes  
1. to build, produce  
2. to prepare for use  
3. to achieve or attain  
4. to do, execute

What is the meaning of make as it is used in paragraph 5?

A to build, produce  
B to prepare for use  
C to achieve or attain  
D to do, execute

6 What is the main idea of paragraph 6?

A The narrator is unhappy with Julie.  
B Julie is happy to forgive her friend.  
C The narrator feels bad that she judged Julie.  
D Julie makes friends with other cheerleaders.
What upsets the narrator in paragraph 2?

A. hearing that Julie wants to try out for cheerleading
B. learning Julie makes the cheerleader team
C. feeling that the cheerleaders are rude
D. not making the cheerleading squad

Which best represents the theme of the story?

A. . . . though I felt bad, I refused to look at her.
B. . . . I was amazed by the enthusiasm and skill of Julie’s cheering.
C. . . . Julie enthusiastically lead cheer after cheer.
D. . . . I realized there was room in Julie’s life for all of us.

Why was the narrator’s attendance at the game important?

A. It allowed her to see Julie with her new friends.
B. It let Julie see how sad her old friend felt.
C. It allowed her to see her own selfishness.
D. It let her look for new friends.

What is the author’s purpose for “A True Friend”?

A. to persuade the reader to try new activities
B. to inform the reader how to become a cheerleader
C. to entertain the reader with a story about friendship
D. to persuade the reader that cheerleading is a difficult sport
11 In paragraph 7, what does “a red stain” represent?

A becoming very angry about something
B becoming embarrassed from shame
C being badly sunburned
D being ill with fever

12 What does the phrase “following her heart” mean in paragraph 7?

A doing what she thinks is right
B doing what will make her popular
C doing what her friends want of her
D doing what her parents want her to do
Read the selection below. Then answer the questions that follow.

A Diary of Rainey T. Wells

June 12, 1892

1. I visited Nathan Stubblefield this morning. Although he’s thirty years old, he is like a large child, always playing around with his inventions.

2. I wasn’t surprised when Nathan came out, holding a black wooden box about the size of an egg crate. “Take this,” Nate said. I took it. The box was heavy, though not hard to carry. Cloth was stretched over the round holes cut in front, and some wires and knobs stuck out here and there. Nathan twisted the knobs for a few moments before going back inside to retrieve another box similar to the one I was holding. He sat on the edge of the porch and started fiddling with that box.

3. “Walk up that hill to that fence post.” He pointed to a hilltop, about two or three hundred yards away.

4. At the top of the hill, I rested the box on the fence post. Just as I did, the box hummed and crackled. “Hello, Rainey!” Nate’s voice said behind me. I jumped a foot off the ground. Below, Nate sat on the porch leaning over his box.

5. I started laughing. “That’s a good trick, Nathan! How’d you do it, stretch wires under ground? You sure did a good job of hiding them.”

6. “There are no wires,” Nate’s voice crackled from one of the cloth-covered holes in the box. I searched; there had to be wires.

7. “There’s no such thing as a wireless telephone,” I mumbled.

8. “There is now!” Nate’s voice responded, loud and clear.

9. Back at his front porch, I handed Nathan his fantastic box. “When are you going to start selling these things? Because I sure want one! Everybody in town’s going to want one.”

10. Nathan shrugged and shook his head. “In a year or two, maybe, when I get all the problems worked out. Don’t tell anybody until I get a chance to perfect it.”

11. Most people in town think Nathan Stubblefield is a strange man, and a dreamer. Now, when people know what I know, they will change their minds pretty quickly!

January 1, 1902

12. Nathan Stubblefield started the year out by demonstrating his wireless telephone to the town. He had half a dozen listening stations set up all over Murray City. They were boxes very much like the ones he showed me years ago. From a transmitter in his house, Nathan could send his voice all over town.

13. I was in the back room of Hanson’s General Store, crowded with folks, all laughing and making jokes. “What’s ol’ Nate going to do this time, make it snow gumdrops?” asked Burt Hanson, chuckling. He bent over the box, examining it, tapping it with his fist.
14 Just then, the box crackled and hummed. “Happy New Year!” Nathan’s deep voice filled the room and Burt nearly tumbled over backwards. The crowd fell silent and wide-eyed with disbelief as they listened.

15 After a short speech, Nathan’s son played his harmonica and whistled a few tunes. When the show ended twenty minutes later, everybody in town rushed outside into the cold and cheered.

August 23, 1902

16 Nathan demonstrated his wireless creation from the deck of a steamboat on the Potomac River in Washington, D.C. People a mile away heard his voice as clearly as if he had been standing beside them. Surely, it’s only a matter of time now before everybody knows about Nathan Stubblefield.

17 Nathan Stubblefield failed to file the proper paperwork to prove his inventions were really his own. He died penniless and unknown in 1928. In 1930, the people of Murray, Kentucky, erected a monument to Nathan Stubblefield, with an inscription calling him “the inventor of radio.”
13. What does “tele” and “phone” mean in the word telephone?
   A. speak and out
   B. hear and voice
   C. through and air
   D. distant and sound

14. What can the reader best conclude from the author’s details about Stubblefield?
   A. Inventors are seldom recognized by the people around them.
   B. Some people may not receive credit for their inventions.
   C. People are not certain about accepting new things.
   D. Creative people are disorganized.

15. Which resource would most likely provide information about the development of radio technology?
   A. a magazine article: “At Home with Radio: Programs of the 1930s & 1940s”
   B. a science magazine article: “Inventors Who Prepared the Way for Radio”
   C. a manual: Repair Your Own Radio and Television Set in Ten Easy Steps
Preparing for Testing to the Standards for College and Career Readiness

The College and Career Readiness Initiative is a state-led effort to establish a shared set of clear educational standards for English language arts and mathematics that states can voluntarily adopt. The standards have been informed by the best available evidence and the highest state standards across the country and globe and designed by a diverse group of teachers, experts, parents, and school administrators, so they reflect both our aspirations for our children and the realities of the classroom. These standards are designed to ensure that students graduating from high school are prepared to go to college or enter the workforce and that parents, teachers, and students have a clear understanding of what is expected of them. The standards are benchmarked to international standards to guarantee that our students are competitive in the emerging global marketplace.

Oklahoma’s State Board of Education adopted the Standards for College and Career Readiness in 2010 along with the majority of other states. This year is the last year of transition as Oklahoma will be moving from our current Oklahoma Academic Standards to the Standards for College and Career Readiness. Transition has included teacher development, local curriculum revision, and test development for a new generation of state assessments. This transition will be complete and fully implemented in the 2014–15 school year.

Mathematics Standards for College and Career Readiness

Ratios and Proportional Relationships (6.RP)

Understand ratio concepts and use ratio reasoning to solve problems.

1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”

2. Understand the concept of a unit rate \( \frac{a}{b} \) associated with a ratio \( a:b \) with \( b \neq 0 \), and use rate language in the context of a ratio relationship. For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar.” “We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger.”

3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
   a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.

---

1 Expectations for unit rates in this grade are limited to non-complex fractions.
b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?

c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

The Number System (6.NS)

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for \((\frac{2}{3}) \div (\frac{3}{4})\) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that \((\frac{2}{3}) \div (\frac{3}{4}) = \frac{8}{9}\) because \(\frac{3}{4}\) of \(\frac{8}{9}\) is \(\frac{2}{3}\). (In general, \((\frac{a}{b}) \div (\frac{c}{d}) = \frac{ad}{bc}\).) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?

Compute fluently with multi-digit numbers and find common factors and multiples.

2. Fluently divide multi-digit numbers using the standard algorithm.

3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express \(36 + 8\) as \(4 (9 + 2)\).

Apply and extend previous understandings of numbers to the system of rational numbers.

5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., \((-(-3)) = 3\), and that 0 is its own opposite.

b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

7. Understand ordering and absolute value of rational numbers.
   a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret \(-3 > -7\) as a statement that \(-3\) is located to the right of \(-7\) on a number line oriented from left to right.
   b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write \(-3 \, ^\circ C > -7 \, ^\circ C\) to express the fact that \(-3\) \(^\circ C\) is warmer than \(-7\) \(^\circ C\).
   c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of \(-30\) dollars, write \(|-30| = 30\) to describe the size of the debt in dollars.
   d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than \(-30\) dollars represents a debt greater than 30 dollars.

8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

Expressions and Equations (6.EE)

Apply and extend previous understandings of arithmetic to algebraic expressions.

1. Write and evaluate numerical expressions involving whole-number exponents.
2. Write, read, and evaluate expressions in which letters stand for numbers.
   a. Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract \(y\) from 5” as \(5 - y\).
   b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression \(2 \, (8 + 7)\) as a product of two factors; view \((8 + 7)\) as both a single entity and a sum of two terms.
   c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas \(V = s^3\) and \(A = 6 \, s^2\) to find the volume and surface area of a cube with sides of length \(s = 1/2\).

3. Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression \(3 \, (2 + x)\) to produce the equivalent expression \(6 + 3x\); apply the distributive property to the expression \(24x + 18y\) to produce the equivalent expression \(6 \, (4x + 3y)\); apply properties of operations to \(y + y + y\) to produce the equivalent expression \(3y\).

4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions \(y + y + y\) and \(3y\) are equivalent because they name the same number regardless of which number \(y\) stands for.
Reason about and solve one-variable equations and inequalities

5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

7. Solve real-world and mathematical problems by writing and solving equations of the form \( x + p = q \) and \( px = q \) for cases in which \( p, q \) and \( x \) are all nonnegative rational numbers.

8. Write an inequality of the form \( x > c \) or \( x < c \) to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form \( x > c \) or \( x < c \) have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

Represent and analyze quantitative relationships between dependent and independent variables.

9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation \( d = 65t \) to represent the relationship between distance and time.

Geometry (6.G)

Solve real-world and mathematical problems involving area, surface area, and volume.

1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.

2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas \( V = l \times w \times h \) and \( V = b \times h \) to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.

4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Statistics and Probability (6.SP)

Develop understanding of statistical variability.

1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.
2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.

3. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

**Summarize and describe distributions.**

4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

5. Summarize numerical data sets in relation to their context, such as by:
   a. Reporting the number of observations.
   b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
   c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
   d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

**Reading Standards for College and Career Readiness**

**Literature**

**Key Ideas and Details**

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

3. Describe how a particular story’s or drama’s plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.

**Craft and Structure**

4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.

5. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.

6. Explain how an author develops the point of view of the narrator or speaker in a text.

**Integration of Knowledge and Ideas**

7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.

8. (Not applicable to literature)

9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.
Range of Reading and Level of Text Complexity
10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Informational Text

Key Ideas and Details
1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).

Craft and Structure
4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
6. Determine an author’s point of view or purpose in a text and explain how it is conveyed in the text.

Integration of Knowledge and Ideas
7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
9. Compare and contrast one author’s presentation of events with that of another (e.g., a memoir written by and a biography on the same person).

Range of Reading and Level of Text Complexity
10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
## Answer Keys

### Mathematics

<table>
<thead>
<tr>
<th>Number</th>
<th>Answer</th>
<th>OAS Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample A</td>
<td>C</td>
<td>1.1</td>
</tr>
<tr>
<td>Sample B</td>
<td>B</td>
<td>2.1</td>
</tr>
<tr>
<td>1</td>
<td>C</td>
<td>1.1</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>1.3</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>2.2a</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>2.1</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>2.2c</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>2.2e</td>
</tr>
<tr>
<td>7</td>
<td>D</td>
<td>3.1</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>3.3</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td>3.2</td>
</tr>
<tr>
<td>10</td>
<td>C</td>
<td>4.2</td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>4.2</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>5.1</td>
</tr>
<tr>
<td>13</td>
<td>B</td>
<td>5.1</td>
</tr>
<tr>
<td>14</td>
<td>B</td>
<td>5.1</td>
</tr>
<tr>
<td>15</td>
<td>D</td>
<td>5.3</td>
</tr>
</tbody>
</table>

### Reading

<table>
<thead>
<tr>
<th>Number</th>
<th>Answer</th>
<th>OAS Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample A</td>
<td>C</td>
<td>4.1b</td>
</tr>
<tr>
<td>Sample B</td>
<td>B</td>
<td>3.3a</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>1.2c</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>3.1b</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>5.2c</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>3.2b</td>
</tr>
<tr>
<td>5</td>
<td>C</td>
<td>1.1b</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>3.1c</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>3.1d</td>
</tr>
<tr>
<td>8</td>
<td>D</td>
<td>4.2a</td>
</tr>
<tr>
<td>9</td>
<td>C</td>
<td>3.4b</td>
</tr>
<tr>
<td>10</td>
<td>C</td>
<td>4.2c</td>
</tr>
<tr>
<td>11</td>
<td>B</td>
<td>4.3d</td>
</tr>
<tr>
<td>12</td>
<td>A</td>
<td>4.3a</td>
</tr>
<tr>
<td>13</td>
<td>D</td>
<td>1.2c</td>
</tr>
<tr>
<td>14</td>
<td>B</td>
<td>3.2a</td>
</tr>
<tr>
<td>15</td>
<td>B</td>
<td>5.1b</td>
</tr>
</tbody>
</table>
Mathematics

SAMPLES
A  D  C  D  B
B  C  C  D  C
1 C  C  C  D
2 C  C  C  D
3 A  A  A  C
4 B  B  B  D
5 A  A  A  D
6 A  A  A  D
7 A  A  A  D
8 A  A  A  D
9 A  A  A  D
10 A  A  A  D
11 A  A  A  D
12 A  A  A  D
13 A  A  A  D
14 A  A  A  D
15 A  A  A  D

Reading

SAMPLES
A  B  D  C  D  B
B  C  C  D  C  D
1 C  C  C  D
2 C  C  C  D
3 A  A  A  C
4 B  B  B  D
5 A  A  A  D
6 A  A  A  D
7 A  A  A  D
8 A  A  A  D
9 A  A  A  D
10 A  A  A  D
11 A  A  A  D
12 A  A  A  D
13 A  A  A  D
14 A  A  A  D
15 A  A  A  D

Copyright © 2014 by the Oklahoma State Department of Education. All rights reserved.