Mastering the TAKS
Texas Assessment of Knowledge and Skills
Grade 4

Includes:
- TAKS Objectives and Texas Essential Knowledge and Skills (TEKS) for Mathematics, Grade 4
- Diagnostic Test
- Practice for each TAKS Objective
- Practice Test
- Benchmark Tests
- Countdown to TAKS
- Student Recording Charts
- Student Answer Documents
## Road Map to TAKS Success

### An Annotated Table of Contents

#### Checkpoint Ahead

### Steps to Success

#### Diagnose Your Needs

- Learn what mathematics skills are assessed on the TAKS.
  - TAKS Objectives and TEKS Student Expectations, Grade 4 Mathematics  
    (vii–x)
  - Take the Diagnostic Test to find out which mathematics skills you have mastered.
    - Diagnostic Test  
      (1–12)
  - Record your mastered skills.
    - Student Recording Sheet  
      (v)
  - If you made a perfect score on your Diagnostic Test, proceed to Step 3 on the next page.

#### Prescribe Ways to Improve Your Skills

- Use the information from your Student Recording Sheet to determine which Practice by Objective pages you need to complete to improve your mathematics skills.
  - Numbers, Operations, and Quantitative Reasoning  
    (13–26)
  - Patterns, Relationships, and Algebraic Thinking  
    (27–29)
  - Geometry and Spatial Reasoning  
    (30–36)
  - Measurement  
    (37–43)
  - Probability and Statistics  
    (44–45)
  - Underlying Processes and Mathematical Tools  
    (46–63)

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**Mastering the TAKS, Grade 4**

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**4027 Mastering TEKS/TAKS G4 SE**

Feb. 18, 2009

Printer PDF

Reviewed by Pronk

Reviewed by MHR

Final approval, No changes
Road Map to TAKS Success (continued)
An Annotated Table of Contents

Steps to Success

Practice Your Test Skills

Take the Practice Test to determine how you have improved your mathematics skills.

Practice Test .......................... 55–66

Approximately 10 weeks before your test date, begin the Countdown to TAKS. This contains problems that are similar to those found on the TAKS.

Countdown to TAKS .................. 67–76

Work on the problems for each day unless your teacher instructs you to do otherwise. Each question tells which objective is being assessed.

Benchmark Your Progress

Monitor your progress as the year progresses by taking the Benchmark Tests. You can record your progress with each test.

Mastery of Objectives Chart .......................... xi

Each Benchmark Test assesses the same concepts but is taken at a different time during the school year. Your test scores should improve with each test taken.

Benchmark Test 1 (take in late October) .............. 77–90
Benchmark Test 2 (take in early January) ............ 91–102
Benchmark Test 3 (take in early February) .......... 103–115
OBJECTIVE 4: MEASUREMENT
The student will demonstrate an understanding of the concepts and uses of measurement.

(4.11) The student applies measurement concepts. The student is expected to estimate and measure to solve problems involving length (including perimeter) and area. The student uses measurement tools to measure capacity/volume and weight/mass.

The student is expected to:
(A) estimate and use measurement tools to determine length (including perimeter), area, capacity, and weight/mass using standard units SI (metric) and customary;
(B) perform simple conversions between different units of length, between different units of capacity, and between different units of weight within the customary measurement system;
(C) use concrete models of standard cubic units to measure volume;
(D) estimate volume in cubic units; and
(E) explain the difference between weight and mass.

(4.12) The student applies measurement concepts. The student measures time and temperature (in degrees Fahrenheit and Celsius).

The student is expected to:
(A) use a thermometer to measure temperature and changes in temperature; and
(B) use tools such as a clock with gears or a stopwatch to solve problems involving elapsed time.

OBJECTIVE 5: PROBABILITY AND STATISTICS
The student will demonstrate an understanding of probability and statistics.

(4.13) The student solves problems by collecting, organizing, displaying, and interpreting sets of data.

The student is expected to:
(A) use concrete objects or pictures to make generalizations about determining all possible combinations of a given set of data or of objects in a problem situation; and
(B) interpret bar graphs.

OBJECTIVE 6: UNDERLYING PROCESSES AND MATHEMATICAL TOOLS
The student will demonstrate an understanding of mathematical processes and tools used in problem solving.

(4.14) The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school.

The student is expected to:
(A) identify the mathematics in everyday situations;
(B) solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;
(C) select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and
(D) use tools such as real objects, manipulatives, and technology to solve problems.
Color in the bubble for each question that you answered correctly on the Diagnostic Test. For each question you did not answer correctly, your teacher may ask you to do the exercises on the practice sheet prescribed.

<table>
<thead>
<tr>
<th>Question</th>
<th>Standard Assessed</th>
<th>Practice Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(4.6)(A)</td>
<td>27–28</td>
</tr>
<tr>
<td>2</td>
<td>(4.8)(C)</td>
<td>30–32</td>
</tr>
<tr>
<td>3</td>
<td>(4.11)(A)</td>
<td>37–41</td>
</tr>
<tr>
<td>4</td>
<td>(4.5)(B)</td>
<td>25–26</td>
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<td>5</td>
<td>(4.16)(A)</td>
<td>52–53</td>
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<td>6</td>
<td>(4.13)(A)</td>
<td>44–45</td>
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<td>7</td>
<td>(4.14)(C)</td>
<td>46, 47</td>
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<td>8</td>
<td>(4.9)(C)</td>
<td>33–35</td>
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<td>9</td>
<td>(4.14)(B)</td>
<td>46–49</td>
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<tr>
<td>10</td>
<td>(4.13)(A)</td>
<td>44–45</td>
</tr>
<tr>
<td>11</td>
<td>(4.7)(A)</td>
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</tr>
<tr>
<td>12</td>
<td>(4.5)(A)</td>
<td>25–26</td>
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<td>13</td>
<td>(4.12)(A)</td>
<td>42–43</td>
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<td>14</td>
<td>(4.4)(B)</td>
<td>22, 24</td>
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<td>15</td>
<td>(4.8)(A)</td>
<td>30–31</td>
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<tr>
<td>16</td>
<td>(4.3)(A)</td>
<td>19–20</td>
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<tr>
<td>17</td>
<td>(4.6)(A)</td>
<td>27–28</td>
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<td>18</td>
<td>(4.13)(B)</td>
<td>44–45</td>
</tr>
<tr>
<td>19</td>
<td>(4.4)(E)</td>
<td>21–24</td>
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<td>20</td>
<td>(4.11)(B)</td>
<td>37–38, 40</td>
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<td>21</td>
<td>(4.14)(C)</td>
<td>46, 47</td>
</tr>
<tr>
<td>22</td>
<td>(4.4)(D)</td>
<td>21–23</td>
</tr>
<tr>
<td>23</td>
<td>(4.8)(B)</td>
<td>30–32</td>
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<tr>
<td>24</td>
<td>(4.7)(A)</td>
<td>29</td>
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<tr>
<td>25</td>
<td>(4.15)(A)</td>
<td>50–51</td>
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<tr>
<td>26</td>
<td>(4.2)(B)</td>
<td>15</td>
</tr>
<tr>
<td>27</td>
<td>(4.4)(C)</td>
<td>21–24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Standard Assessed</th>
<th>Practice Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>(4.11)(A)</td>
<td>37–41</td>
</tr>
<tr>
<td>29</td>
<td>(4.14)(A)</td>
<td>46–49</td>
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<tr>
<td>30</td>
<td>(4.10)(A)</td>
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<td>31</td>
<td>(4.7)(A)</td>
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<td>32</td>
<td>(4.1)(A)</td>
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<td>33</td>
<td>(4.15)(B)</td>
<td>50–51</td>
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<td>34</td>
<td>(4.6)(B)</td>
<td>27–28</td>
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<td>35</td>
<td>(4.13)(A)</td>
<td>44–45</td>
</tr>
<tr>
<td>36</td>
<td>(4.6)(A)</td>
<td>27–28</td>
</tr>
<tr>
<td>37</td>
<td>(4.16)(B)</td>
<td>52–53</td>
</tr>
<tr>
<td>38</td>
<td>(4.2)(A)</td>
<td>15–18</td>
</tr>
<tr>
<td>39</td>
<td>(4.2)(C)</td>
<td>15–18</td>
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<tr>
<td>40</td>
<td>(4.9)(A)</td>
<td>33–34</td>
</tr>
<tr>
<td>41</td>
<td>(4.7)(A)</td>
<td>29</td>
</tr>
<tr>
<td>42</td>
<td>(4.11)(D)</td>
<td>38, 40</td>
</tr>
<tr>
<td>43</td>
<td>(4.1)(B)</td>
<td>13–14</td>
</tr>
<tr>
<td>44</td>
<td>(4.3)(B)</td>
<td>19–20</td>
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<tr>
<td>45</td>
<td>(4.2)(D)</td>
<td>15–18</td>
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<td>46</td>
<td>(4.11)(C)</td>
<td>37, 39</td>
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<td>47</td>
<td>(4.4)(A)</td>
<td>21–22, 24</td>
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<td>48</td>
<td>(4.12)(B)</td>
<td>42–43</td>
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<td>49</td>
<td>(4.9)(B)</td>
<td>34–35</td>
</tr>
<tr>
<td>50</td>
<td>(4.14)(D)</td>
<td>46</td>
</tr>
<tr>
<td>51</td>
<td>(4.11)(E)</td>
<td>39</td>
</tr>
</tbody>
</table>

How many questions did you answer correctly? ________
Grade 4 Texas Assessment of Knowledge and Skills

The TAKS questions are organized by six main objectives:
Objective 1: Numbers, Operations, and Quantitative Reasoning
Objective 2: Patterns, Relationships, and Algebraic Thinking
Objective 3: Geometry and Spatial Reasoning
Objective 4: Measurement
Objective 5: Probability and Statistics
Objective 6: Underlying Processes and Mathematical Tools

These questions are based on many of the TEKS (Texas Essential Knowledge and Skills) Student Expectations. The following is a list of those expectations for Grade 4.

<table>
<thead>
<tr>
<th>TEKS Grade 4 Student Expectations</th>
<th>OBJECTIVE 1: NUMBERS, OPERATIONS, AND QUANTITATIVE REASONING</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4.1)</td>
<td>The student uses place value to represent whole numbers and decimals. The student is expected to:</td>
</tr>
<tr>
<td></td>
<td>(A) use place value to read, write, compare, and order whole numbers through 999,999,999,999; and</td>
</tr>
<tr>
<td></td>
<td>(B) use place value to read, write, compare, and order decimals involving tenths and hundredths, including money, using concrete objects and pictorial models.</td>
</tr>
<tr>
<td>(4.2)</td>
<td>The student describes and compares fractional parts of whole objects or sets of objects. The student is expected to:</td>
</tr>
<tr>
<td></td>
<td>(A) use concrete objects and pictorial models to generate equivalent fractions;</td>
</tr>
<tr>
<td></td>
<td>(B) model fraction quantities greater than one using concrete objects and pictorial models;</td>
</tr>
<tr>
<td></td>
<td>(C) compare and order fractions using concrete objects and pictorial models; and</td>
</tr>
<tr>
<td></td>
<td>(D) relate decimals to fractions that name tenths and hundredths using concrete objects and pictorial models.</td>
</tr>
<tr>
<td>(4.3)</td>
<td>The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. The student is expected to:</td>
</tr>
<tr>
<td></td>
<td>(A) use addition and subtraction to solve problems involving whole numbers; and</td>
</tr>
<tr>
<td></td>
<td>(B) add and subtract decimals to the hundredths place using concrete objects and pictorial models.</td>
</tr>
<tr>
<td>(4.4)</td>
<td>The student multiplies and divides to solve meaningful problems involving whole numbers. The student is expected to:</td>
</tr>
<tr>
<td></td>
<td>(A) model factors and products using arrays and area models;</td>
</tr>
<tr>
<td></td>
<td>(B) represent multiplication and division situations in picture, word, and number form;</td>
</tr>
<tr>
<td></td>
<td>(C) recall and apply multiplication facts through $12 \times 12$;</td>
</tr>
<tr>
<td></td>
<td>(D) use multiplication to solve problems (no more than two digits times two digits without technology); and</td>
</tr>
<tr>
<td></td>
<td>(E) use division to solve problems (no more than one-digit divisors and three-digit dividends without technology).</td>
</tr>
</tbody>
</table>
## TEKS Grade 4 Student Expectations

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
</tr>
</thead>
</table>
| **[4.5]** | The student estimates to determine reasonable results. The student is expected to:  
(A) round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations; and  
(B) use strategies including rounding and compatible numbers to estimate solutions to multiplication and division problems. |
| **[4.6]** | The student uses patterns in multiplication and division. The student is expected to:  
(A) use patterns and relationships to develop strategies to remember basic multiplication and division facts (such as the patterns in related multiplication and division number sentences (fact families) such as $9 \times 9 = 81$ and $81 \div 9 = 9$); and  
(B) use patterns to multiply by 10 and 100. |
| **[4.7]** | The student uses organizational structures to analyze and describe patterns and relationships. The student is expected to:  
(A) describe the relationship between two sets of related data such as ordered pairs in a table. |
| **[4.8]** | The student identifies and describes attributes of geometric figures using formal geometric language. The student is expected to:  
(A) identify and describe right, acute, and obtuse angles;  
(B) identify and describe parallel and intersecting (including perpendicular) lines using concrete objects and pictorial models; and  
(C) use essential attributes to define two- and three-dimensional geometric figures. |
| **[4.9]** | The student connects transformations to congruence and symmetry. The student is expected to:  
(A) demonstrate translations, reflections, and rotations using concrete models;  
(B) use translations, reflections, and rotations to verify that two shapes are congruent; and  
(C) use reflections to verify that a shape has symmetry. |
| **[4.10]** | The student recognizes the connection between numbers and their properties and points on a line. The student is expected to:  
(A) locate and name points on a number line using whole numbers, fractions such as halves and fourths, and decimals such as tenths. |
## TEKS Grade 4 Student Expectations

### (4.15) The student communicates about Grade 4 mathematics using informal language.
The student is expected to:
- (A) explain and record observations using objects, words, pictures, numbers, and technology; and
- (B) relate informal language to mathematical language and symbols.

### (4.16) The student uses logical reasoning.
The student is expected to:
- (A) make generalizations from patterns or sets of examples and nonexamples; and
- (B) justify why an answer is reasonable and explain the solution process.
# Mastery of Objectives Chart

## Benchmarks Tests

**Directions** After taking each Benchmark Test, color in the bubble in front of each question that you answered *correctly*. The goal is to gain more colored-in bubbles with each Benchmark Test you take.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
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</thead>
<tbody>
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<td>1 21</td>
<td>3 22</td>
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<td></td>
<td>5 37</td>
<td>7 27</td>
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<td></td>
<td>9 38</td>
<td>10 28</td>
<td>9 26</td>
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<td>13 40</td>
<td>11 35</td>
<td>11 34</td>
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<td>16 43</td>
<td>12 42</td>
<td>14 35</td>
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<td>18 44</td>
<td>20 47</td>
<td>17 38</td>
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<td>22 48</td>
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<td>19 50</td>
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<td></td>
<td>26 50</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td><strong>Patterns, Relationships, and Algebraic Thinking</strong></td>
<td>4 28</td>
<td>2 37</td>
<td>1 31</td>
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<td></td>
<td>12 33</td>
<td>15 44</td>
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<td>30</td>
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<tr>
<td><strong>Geometry and Spatial Reasoning</strong></td>
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<td>3 19</td>
<td>2 29</td>
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<td>17</td>
<td>16 45</td>
<td>24 48</td>
</tr>
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<td><strong>Measurement</strong></td>
<td>6 35</td>
<td>6 34</td>
<td>6 40</td>
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<td>7 41</td>
<td>13 36</td>
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<td>13 45</td>
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<td>31 50</td>
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<td><strong>Probability and Statistics</strong></td>
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<td>29 47</td>
<td>26 49</td>
<td>18</td>
</tr>
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</table>

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*Mastering the TAKS, Grade 4*  xi
# Mathematics Chart

## LENGTH

<table>
<thead>
<tr>
<th>Metric</th>
<th>Customary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kilometer = 1000 meters</td>
<td>1 mile = 1760 yards</td>
</tr>
<tr>
<td>1 meter = 100 centimeters</td>
<td>1 mile = 5280 feet</td>
</tr>
<tr>
<td>1 centimeter = 10 millimeters</td>
<td>1 yard = 3 feet</td>
</tr>
<tr>
<td></td>
<td>1 foot = 12 inches</td>
</tr>
</tbody>
</table>

## CAPACITY AND VOLUME

<table>
<thead>
<tr>
<th>Metric</th>
<th>Customary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 liter = 1000 milliliters</td>
<td>1 gallon = 4 quarts</td>
</tr>
<tr>
<td></td>
<td>1 gallon = 128 fluid ounces</td>
</tr>
<tr>
<td></td>
<td>1 quart = 2 pints</td>
</tr>
<tr>
<td></td>
<td>1 pint = 2 cups</td>
</tr>
<tr>
<td></td>
<td>1 cup = 8 fluid ounces</td>
</tr>
</tbody>
</table>

## MASS AND WEIGHT

<table>
<thead>
<tr>
<th>Metric</th>
<th>Customary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kilogram = 1000 grams</td>
<td>1 ton = 2000 pounds</td>
</tr>
<tr>
<td>1 gram = 1000 milligrams</td>
<td>1 pound = 16 ounces</td>
</tr>
</tbody>
</table>

## TIME

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year = 365 days</td>
<td></td>
</tr>
<tr>
<td>1 year = 12 months</td>
<td></td>
</tr>
<tr>
<td>1 year = 52 weeks</td>
<td></td>
</tr>
<tr>
<td>1 week = 7 days</td>
<td></td>
</tr>
<tr>
<td>1 day = 24 hours</td>
<td></td>
</tr>
<tr>
<td>1 hour = 60 minutes</td>
<td></td>
</tr>
<tr>
<td>1 minute = 60 seconds</td>
<td></td>
</tr>
</tbody>
</table>
How do I fill in the grid?

- The grid is made up of two sections. You must complete both sections to be scored correctly by the computer.
- Only put one number in each box.
- The boxes at the top represent hundreds, tens, and ones places. If your answer has no hundreds or tens digit, leave each of these boxes empty.
- After writing in each number in the appropriate place value column, color in the bubble below to match the number you have written.

- If you make a mistake, be sure to erase completely.
Mastering the TAKS

In fourth grade, you will take a test called the Texas Assessment of Knowledge and Skills, or TAKS.

The following pages will help you get ready to take the TAKS.

• Most of the questions you will answer on the TAKS are called *multiple-choice* questions. A multiple-choice question can be the easiest kind of problem to answer because you know that one of the answer choices is the right answer.

• Another kind of question on the TAKS is called a griddable question. There are no choices given to select from for this type of question. You must figure out the answer on your own and then enter your answer in a special grid shown below.

• A computer scores the TAKS. You will fill in bubbles on a separate answer document to answer both the multiple-choice questions and the griddable questions. These pages will also show you how to correctly color in the bubbles for the computer to score your answers correctly.

• It is important to check over your work. These pages teach you how to check over your work so that you do your best when you take the TAKS for the first time.
How do I answer multiple-choice questions?

Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not Here.”

Which digit is in the thousands place in the number 4,861,392?
A 6
B 4
C 1
D Not Here

• Read the question carefully.
• Do any work in your test booklet beside or below the question.
• Work slowly and carefully.
• Solve the problem.
• Look for your answer in the choices.
• You will record your answer on a separate answer document. Anything you write in your test booklet will not be scored.
How do I fill in the bubble?

Did you find your answer among the choices given?

If not, go back and work the problem again.

- If your answer is one of the choices, fill in the answer bubble on your answer document that contains the same letter as your choice.

- Make sure you fill in the bubble completely.
  The chart below shows you how to do this best.

- Make your marks dark.

- If you make a mistake be sure to erase your first mark completely before marking the correct choice.

The next page will show you how to complete a griddable question.
How do I answer griddable questions?

In your test booklet: Joey has 8 books. Roberto has twice as many books as Joey has. How many books does Roberto have?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

On the answer document:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

- Read the problem carefully.
- Make sure you understand what the question is asking.
- Decide which facts you need to solve the problem.
- Decide which operation you would use.
- Work the problem in the space provided in your test booklet.
- Check that the answer makes sense. Then complete the grid.
Diagnostic Test

How can I check my work?

Ask yourself these questions:

• Did I use the right information from the problem?
• Did I answer the question that was asked?
• When solving the problem, did I copy the correct numbers from the problem?
• Did I do the math correctly?
• Does my answer make sense?
• Did I fill in the bubbles correctly for multiple-choice?
• Did I fill in the grid and bubbles correctly for the griddable questions?

Test-Taking Hints

• Go to bed early the night before the test. You will think more clearly after a good night’s rest.
• Eat breakfast in the morning. An empty stomach will distract you while taking your test.
• Relax. Most people get nervous when taking a test. It is natural. Just do your best.
• Answer questions you are sure about first. If you do not know how to work a problem, skip it and come back to it later if you have time.
• Think positively. Some problems may seem hard to you, but you may be able to figure out what to do if you read each question carefully.
Mastering the TAKS (continued)

TAKS Practice Questions

Read each question. Then fill in the correct answer on your answer document.

1 Which number is missing from the number sentence?

\[
63 \div \underline{} = 7
\]

A 6  
B 7  
C 8  
D 9

2 Mr. and Mrs. Gómez ride bikes to exercise. The table shows the total number of miles they had ridden after different numbers of days.

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Total Number of Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>90</td>
</tr>
<tr>
<td>15</td>
<td>150</td>
</tr>
</tbody>
</table>

If the pattern continues, how many miles will Mr. and Mrs. Gómez have ridden after 28 days?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

Turn the page to check your answers.
Mastering the TAKS (continued)

TAKS Practice Questions

Read each question. Then fill in the correct answer on your answer document.

1 Which number is missing from the number sentence?

\[ 63 \div \underline{\phantom{0}} = 7 \]

A 6
B 7
C 8
D 9

The correct answer is 9, which is choice D. You need to color in bubble D on your answer document.

2 Mr. and Mrs. Gómez ride bikes to exercise. The table shows the total number of miles they had ridden after different numbers of days.

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Total Number of Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>90</td>
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<td>15</td>
<td>150</td>
</tr>
</tbody>
</table>

The pattern to get the total number of miles is multiply the number of days by 10. For 28 days, \(28 \times 10 = 280\).

If the pattern continues, how many miles will Mr. and Mrs. Gómez have ridden after 28 days?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.
# Diagnostic Test

**Student Answer Sheet**

Record your answers by coloring in the appropriate bubble for the best answer to each question.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>51</td>
<td></td>
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</tbody>
</table>
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

1. In which number sentence does 4 make the equation true?
   A. \(24 \div \square = 6\)
   B. \(24 \times 6 = \square\)
   C. \(\square \times 24 = 6\)
   D. \(\square \div 6 = 24\)

2. Which of these polygons has fewer than 4 sides?
   F. Octagon
   G. Rectangle
   H. Trapezoid
   J. Triangle

3. What is the best estimate for the weight of an apple?
   A. 200 ounces
   B. 2 milligrams
   C. 2,000 pounds
   D. 20 grams

4. There are 168 hours in a week and 52 weeks in a year. Which is the best estimate of the number of hours in a year?
   F. 300 h
   G. 850 h
   H. 3,000 h
   J. 8,500 h

5. Look at the two sets of numbers below.

<table>
<thead>
<tr>
<th></th>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,212</td>
<td></td>
<td>1,144</td>
</tr>
<tr>
<td>3,636</td>
<td></td>
<td>3,355</td>
</tr>
<tr>
<td>4,848</td>
<td></td>
<td>7,788</td>
</tr>
</tbody>
</table>

Which number belongs in Set B?
   A. 1,414
   B. 2,266
   C. 2,525
   D. 6,776

6. In a fourth grade class, 6 boys are wearing shorts and 8 boys are wearing jeans. If the teacher picks 1 boy from the class, what are the chances the boy will be wearing shorts?
   F. 2 out of 14
   G. 4 out of 14
   H. 6 out of 14
   J. 8 out of 14

7. Luis rode his bicycle around the block 5 days in a row. What information is needed to find the total distance Luis rode?
   A. The distance around the block
   B. The amount of time Luis rode
   C. The speed at which Luis rode
   D. The weather during the week

Go on
8 Suppose each shape below is reflected over the line shown. Which shape's reflection will look exactly like the original image?

F
G
H
J

9 Twanda has 8 yards of yarn. She needs 30 feet of yarn for a project. What should Twanda do to find out if she has enough yarn for her project?
A Multiply 8 by 30
B Multiply 30 by 3
C Multiply 8 by 3
D Multiply 30 by 6

10 Inside a bag there are 4 blue marbles, 2 green marbles, and 3 red marbles. If 1 marble is drawn without looking, what is the chance that it will be blue?
F 3 out of 6
G 4 out of 5
H 4 out of 9
J 5 out of 9

11 James buys baseball cards by the box. The table below shows how many baseball cards are in 2, 4, and 6 boxes.

<table>
<thead>
<tr>
<th>Number of Boxes</th>
<th>Number of Baseball Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>160</td>
</tr>
<tr>
<td>4</td>
<td>320</td>
</tr>
<tr>
<td>6</td>
<td>480</td>
</tr>
</tbody>
</table>

Based on the pattern in the table, how can James determine the number of baseball cards in 8 boxes?
A Multiply 8 by 80
B Add 8 to 80
C Subtract 8 from 80
D Divide 80 by 8

12 There are 18 tables in a restaurant. Each table can seat 6 people. Which number sentence estimates how many people the restaurant can seat at one time?
F $20 + 6 = 26$
G $20 \times 6 = 120$
H $10 + 6 = 16$
J $10 \times 6 = 60$
13. At the beginning of the school day the temperature was 65°F. At lunch time the temperature had risen 6°F. Between lunch and the end of the school day the temperature dropped 1°F. What was the temperature at the end of the school day?
   A 58°F  
   B 60°F  
   C 70°F  
   D 72°F

14. Ling counted 200 people at a band concert. Ling noticed that equal numbers of people were seated in 5 different sections of the concert hall. How many people were seated in each section?
   F 40  
   G 50  
   H 205  
   J 1,000

15. Which type of angle best describes the angles in the triangle below?
   A Obtuse  
   B Acute  
   C Right  
   D Not Here

16. In 2000, the population of Texas was 20,851,820. By 2005 the population had grown to 22,859,968. How many more people were living in Texas in 2005 than in 2000?
   F 1,997,867  
   G 2,008,148  
   H 2,188,698  
   J 2,888,746

17. For which of the following does the number 8 make the number sentence true?
   A \(7 + \square = 56\)  
   B \(\square - 7 = 56\)  
   C \(7 \times \square = 56\)  
   D \(\square \div 7 = 56\)

18. The graph below shows the years listed on the nickels that Jack has in his piggy bank.

   How many nickels does Jack have from 1996?
   F 3  
   G 5  
   H 7  
   J 10
While riding the bus to school, Jamal counts 12 cars on the road every minute. Jamal counts a total of 96 cars on the way to school. How many minutes was the bus ride? 
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

The table below shows the heights of five girls on a basketball team.

<table>
<thead>
<tr>
<th>Girl</th>
<th>Height (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pam</td>
<td>62</td>
</tr>
<tr>
<td>Jackie</td>
<td>55</td>
</tr>
<tr>
<td>Caroline</td>
<td>65</td>
</tr>
<tr>
<td>Shakira</td>
<td>59</td>
</tr>
<tr>
<td>Sierra</td>
<td>61</td>
</tr>
</tbody>
</table>

Which of the following is the height of the tallest girl on the basketball team?

- F 4 feet 7 inches
- G 5 feet 2 inches
- H 5 feet 5 inches
- J 5 feet 7 inches

Tom has 2 weeks to finish reading a 250-page book. He already read 70 pages. Which would be the best way for Tom to find out how many pages he should read each day in order to finish the book on time?

- A Subtract 14 from 250 and then divide by 70
- B Multiply 70 by 14
- C Divide 250 by 14
- D Subtract 70 from 250 and then divide by 14

Zina exercises every day. If she does 22 sit ups each day, how many sit ups will she do in 1 week?

- F 27
- G 110
- H 154
- J 164

Which of the figures below has two sets of parallel lines?

- A
- B
- C
- D
Bonnie’s fourth grade class is selling pizzas for a fundraiser. For each pizza they sell, students earn extra recess time according to the chart below.

<table>
<thead>
<tr>
<th>Number of Pizzas Sold</th>
<th>Extra Minutes of Recess Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

Suppose Bonnie wants to earn 30 extra minutes of recess time. According to this pattern, how would she determine the number of pizzas she must sell?

F  Divide 30 by 5  
G  Multiply 30 by 5  
H  Divide 30 by 3  
J  Multiply 30 by 3

Mrs. Robertson’s class is going on a field trip. Each group of 6 students will need an adult helper. How can Mrs. Robertson find out how many adult helpers are needed?

A  Divide the number of students in her class by 6  
B  Add 6 to the number of students in her class  
C  Subtract 6 from the number of students in her class  
D  Multiply the number of students in her class by 6

Ana’s pet rabbit eats 11 carrots each week. How many carrots will the rabbit eat in 12 weeks?

A  120  
B  121  
C  132  
D  144
28 Alberto and Julio need to paint one wall in the school gymnasium. The wall is 9 feet wide and 12 feet tall. What is the area of the wall in square feet? Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

29 Kwan spends about 15 minutes riding her bicycle around town every day. About how many days will it take Kwan to spend a total of 2 hours riding her bicycle?
A 6 days  
B 7 days  
C 8 days  
D 9 days

30 Which point on the number line represents \( \frac{3}{2} \)?

W X Y Z

0 1 2 3 4

F W  
G X  
H Y  
J Z

31 The table below shows the number of minutes a family plans to spend on the beach during the first three days of their trip.

<table>
<thead>
<tr>
<th>Day</th>
<th>Time on Beach (in minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>150</td>
</tr>
</tbody>
</table>

If this pattern continues, how can the number of minutes they spend on the beach on Day 4 of their vacation be determined?
A Add 100 to 90  
B Add 30 to 150  
C Multiply 4 by 90  
D Multiply 4 by 30

32 The table below shows the number of tickets sold at a movie theater each year from 2004 to 2007.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Tickets Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>2,088,457</td>
</tr>
<tr>
<td>2005</td>
<td>2,240,165</td>
</tr>
<tr>
<td>2006</td>
<td>1,456,930</td>
</tr>
<tr>
<td>2007</td>
<td>1,978,243</td>
</tr>
</tbody>
</table>

In which year were the least number of tickets sold?
F 2004  
G 2005  
H 2006  
J 2007
33 Darrell scored 8 points during a basketball game. Hakeem scored 3 times as many points as Darrell. Which of these statements describes the total number of points Hakeem scored?
A The sum of 8 and 3
B The difference between 8 and 3
C The product of 8 and 3
D The quotient of 8 and 3

34 A pizza shop owner buys tomato sauce in 16 ounce cans. If he buys 100 cans of tomato sauce, how many ounces of tomato sauce does he purchase?
F 160 ounces
G 1,016 ounces
H 1,600 ounces
J 16,000 ounces

35 Emily put the letter tiles shown below in a bag.

D A B
A C B

If Emily picks one letter tile out of the bag without looking, how many different outcomes are possible?
A 3
B 4
C 5
D 6

36 The are 96 students in the fourth grade at La Mesa Elementary School. Each fourth grade teacher has approximately 25 students in class. How many fourth grade teachers are there at La Mesa Elementary School?
F 2
G 3
H 4
J 5

37 The numbers in the list below follow a pattern.
20, 23, 22, 25, 24, 27, 26, ...
Which statement best explains why the next number in the list is 29?
A because 29 < 30
B because 20 + 9 = 29
C because 29 is prime
D because 26 + 3 = 29

38 Which fraction is equivalent to the shaded area of the square?

F 1/2
G 2/3
H 1/4
J 1/3
39 Look at the two rectangles below.

Which expression correctly compares the shaded areas of the rectangles?

A $\frac{2}{8} < \frac{3}{6}$
B $\frac{3}{8} > \frac{2}{6}$
C $\frac{2}{8} > \frac{3}{6}$
D $\frac{3}{8} < \frac{2}{6}$

40 What type of transformation is shown below?

F Translation
G Reflection
H Rotation
J Not here

41 The table below shows the numbers that were put into a machine and the different numbers that came out of the machine.

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>13</td>
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<tr>
<td>20</td>
<td>23</td>
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<tr>
<td>30</td>
<td>33</td>
</tr>
<tr>
<td>40</td>
<td>43</td>
</tr>
</tbody>
</table>

Which statement below best describes what happened to each number that was put into the machine?

A It was multiplied by 3
B It had 3 added to it
C It was divided by 3
D It had 3 subtracted from it

42 Which of the following objects holds about 1 milliliter of water?

F swimming pool
G bathtub
H teaspoon
J mug
43 The table below shows the price of several types of fruit at a fruit stand.

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana</td>
<td>$1.27</td>
</tr>
<tr>
<td>Apple</td>
<td>$2.48</td>
</tr>
<tr>
<td>Orange</td>
<td>$1.74</td>
</tr>
<tr>
<td>Lemon</td>
<td>$2.01</td>
</tr>
</tbody>
</table>

Which fruit is the least expensive?
A Banana  
B Apple   
C Orange  
D Lemon

44 Sarah bought the school supplies shown below.

$25.50  
$3.25   
$2.99   
$1.09

What is the total amount Sarah paid for her school supplies?
F $29.31
G $31.74
H $32.83
J $33.92

45 Look at the figure shown below.

Which decimal is equivalent to the part of the figure that is shaded?
A 0.003  
B 0.03  
C 0.3  
D 0.33

46 If a thermos holds 1.5 liters of liquid, how many milliliters of liquid does it hold?
F 15 milliliters
G 150 milliliters
H 1,500 milliliters
J 15,000 milliliters

47 Which number sentence represents the arrangement of the tiles shown below?
A $4 + 3 = 7$
B $7 - 3 = 4$
C $4 \times 3 = 12$
D $4 \times 4 = 16$
48 Laurie runs on the track team for her school. In her last three meets, Laurie’s times for the 40 yard dash were 4.87 seconds, 5.02 seconds, and 4.74 seconds. What is the difference between her slowest time and her fastest time for the three meets?
F 0.13 seconds  
G 0.15 seconds  
H 0.28 seconds  
J 0.30 seconds

49 Which of the following figures shows a transformation?

A  
B  
C  
D

50 For a school project, Maurice is recording the number of times different cities in Texas reached a temperature of 100°F last year. What would be the best way for him to organize his information?
F Circle all these cities on a map.  
G Make a graph showing the population of these cities.  
H List all these cities in alphabetical order.  
J Make a table of these cities and their temperatures.

51 The mass of an object on Earth is 700 grams. The weight of the same object on Earth is 2 pounds. What would happen to the mass and weight of the object on the moon?
A The mass of the object would increase and its weight would stay the same.  
B The mass of the object would decrease and its weight would stay the same.  
C The mass of the object would stay the same and its weight would change.  
D None of the above are correct answers.
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

TEKS 4.1 Number, operation, and quantitative reasoning The student uses place value to represent whole numbers and decimals.

1. The table below shows the distances between some cities in Texas and Austin, the capital of Texas.

<table>
<thead>
<tr>
<th>City</th>
<th>Distance (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallas</td>
<td>195</td>
</tr>
<tr>
<td>Houston</td>
<td>165</td>
</tr>
<tr>
<td>San Antonio</td>
<td>80</td>
</tr>
<tr>
<td>El Paso</td>
<td>580</td>
</tr>
</tbody>
</table>

Which city is closest to Austin?
A Dallas
B Houston
C San Antonio
D El Paso

2. Mount Everest is the highest mountain in the world. It is 29,028 feet above sea level. Which expression is equivalent to 29,028?
F $20,000 + 900 + 28$
G $20,000 + 9,000 + 20 + 8$
H $2,000 + 900 + 20 + 8$
J $29,000 + 200 + 8$

3. Which of the following numbers is seven hundred seventy-three?
A 73
B 703
C 773
D 7073

4. What fraction of the figure below is shaded?

F six-tenths
G six-hundredths
H four-tenths
J four-hundredths

5. Which number has a 2 in the thousands place?
A 281,465
B 812,465
C 814,265
D 821,465
6 It took Sofia 5.47 seconds to run the 40-yard dash. It took Malia 6.03 seconds to run the same race. Which of the following statements is true?  
F Malia ran faster than Sofia.  
G Sofia tied Malia in the race.  
H Sofia ran slower than Malia.  
J Sofia ran faster than Malia.

7 What number is best represented by point A on the number line below?

8 Which of the following expressions is equivalent to 0.74?  
F 7 + 4  
G 7 + 0.4  
H 0.7 + 0.04  
J 0.7 + 0.004

9 A pizza company sold approximately twenty-two million, nine hundred five thousand pizzas last year. Which of the following numbers equals the number of pizzas sold?  
A 22,905  
B 2,290,500  
C 22,900,005  
D 22,905,000

10 In what place is the digit 3 in the number 134,278,590?  
F ten-thousands  
G millions  
H ten-millions  
J hundred-millions

11 Kelly ran every day last week. The distances she ran each day are displayed in the table below.

<table>
<thead>
<tr>
<th>Day</th>
<th>Distance (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>2.05</td>
</tr>
<tr>
<td>Monday</td>
<td>2.50</td>
</tr>
<tr>
<td>Tuesday</td>
<td>3.25</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1.80</td>
</tr>
<tr>
<td>Thursday</td>
<td>3.70</td>
</tr>
<tr>
<td>Friday</td>
<td>2.25</td>
</tr>
<tr>
<td>Saturday</td>
<td>3.60</td>
</tr>
</tbody>
</table>

Which list shows the distances Kelly ran in order from least to greatest?  
A Wednesday, Saturday, Tuesday, Thursday, Friday, Monday, Sunday  
B Wednesday, Sunday, Friday, Monday, Tuesday, Saturday, Thursday  
C Monday, Friday, Wednesday, Saturday, Sunday, Tuesday, Thursday  
D Sunday, Friday, Tuesday, Saturday, Wednesday, Monday, Thursday

14 Mastering the TAKS, Grade 4
1. What mixed number is represented by the model below?

A. \( \frac{1}{6} \)
B. \( \frac{2}{7} \)
C. \( \frac{2}{3} \)
D. \( \frac{3}{3} \)

2. Using the number line below, which fraction is equivalent to \( \frac{2}{8} \)?

A. \( \frac{1}{4} \)
B. \( \frac{2}{4} \)
C. \( \frac{3}{4} \)
D. Not here

3. Which inequality correctly compares the number of shaded circles in each set below?

Set A: \( \star \star \star \)
Set B: \( \star \star \)

A. \( \frac{2}{3} > \frac{5}{8} \)
B. \( \frac{5}{8} < \frac{3}{6} \)
C. \( \frac{2}{3} = \frac{3}{6} \)
D. \( \frac{5}{8} > \frac{3}{6} \)

4. What number is equal to \( \frac{2}{100} \)?

A. 0.02
B. 0.2
C. 2
D. 200

5. Lin is making cupcakes for a class party. According to the recipe, she needs \( \frac{3}{1} \) cups flour and \( \frac{1}{2} \) cups sugar. She has \( \frac{3}{2} \) cups flour and \( \frac{1}{3} \) cups sugar. Does Lin have enough of each ingredient?

A. Lin has enough of both ingredients.
B. Lin has enough flour, but she needs more sugar.
C. Lin needs more flour and sugar.
D. Lin has enough sugar, but she needs more flour.
6 What number is equal to \( \frac{52}{100} \)?
- F 0.52
- G 5.02
- H 5.20
- J 52.0

7 Which figure below has an area shaded that represents \( \frac{1}{2} \)?
- A
- B
- C
- D Not here

8 What number do the figures below represent?
- F 1.02
- G 1.20
- H 12.0
- J 12.2

9 What fraction on the number line is represented by point J?
- A \( \frac{4}{5} \)
- B \( \frac{5}{6} \)
- C \( \frac{4}{6} \)
- D \( \frac{4}{5} \)

10 Which fraction is \( \text{NOT} \) equivalent to the shaded part of the figure below?
- F \( \frac{1}{2} \)
- G \( \frac{4}{8} \)
- H \( \frac{2}{4} \)
- J \( \frac{1}{4} \)
11 On Monday, one-half of the fourth grade bought pizza for lunch. Which of the following fraction bars represent one-half?

A
B
C
D

12 Which of the following is equal to 0.19?

F \( \frac{9}{100} \)
G \( \frac{19}{100} \)
H \( \frac{9}{10} \)
J \( \frac{9}{10} \)

13 Sue’s dog had a litter of puppies. Six of the puppies are brown and two are tan. What fraction of the puppies are brown?

A \( \frac{2}{6} \)
B \( \frac{2}{8} \)
C \( \frac{6}{8} \)
D \( \frac{8}{6} \)

14 What fraction of the shapes below are shaded?

F \( \frac{1}{3} \)
G \( \frac{3}{4} \)
H \( \frac{1}{4} \)
J \( \frac{2}{4} \)

15 What fraction makes the number sentence below true?

\( \frac{6}{10} < \) 

A \( \frac{3}{5} \)
B \( \frac{4}{9} \)
C \( \frac{7}{8} \)
D \( \frac{6}{11} \)

16 Which mixed number is less than \( 4 \frac{3}{8} \)?

F \( 4 \frac{6}{8} \)
G \( 4 \frac{7}{8} \)
H \( 4 \frac{2}{8} \)
J \( 4 \frac{5}{8} \)
17 What fraction is represented by the shaded portion of the grid below?

A \(\frac{2}{100}\)
B \(\frac{8}{100}\)
C \(\frac{20}{100}\)
D \(\frac{80}{100}\)

18 Anna Maria needs at least \(5\frac{7}{8}\) yards of ribbon to decorate costumes. Which of the following amounts is enough ribbon?
F \(5\frac{1}{2}\) yards
G \(5\frac{3}{4}\) yards
H \(5\frac{8}{9}\) yards
J \(5\frac{2}{3}\) yards

19 Which of the figures below has an area shaded equivalent to \(\frac{2}{3}\)?

A Figure 1 only
B Figure 2 only
C Neither Figure 1 nor 2
D Both Figure 1 and 2

20 The table below shows the amount of spices used in a recipe to make spice cookies.

<table>
<thead>
<tr>
<th>Spice Cookies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spice</td>
</tr>
<tr>
<td>Salt</td>
</tr>
<tr>
<td>Cinnamon</td>
</tr>
<tr>
<td>Nutmeg</td>
</tr>
<tr>
<td>Ginger</td>
</tr>
</tbody>
</table>

Which spice is used the least in the recipe?
F Salt
G Cinnamon
H Nutmeg
J Ginger
TEKS 4.3 Number, operation, and quantitative reasoning The student adds and subtracts to solve meaningful problems involving whole numbers and decimals.

1 The chart below lists the number of students in the fourth grade at three different elementary schools.

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadneck Elementary</td>
<td>352</td>
</tr>
<tr>
<td>Riverview Elementary</td>
<td>297</td>
</tr>
<tr>
<td>Hampton Elementary</td>
<td>325</td>
</tr>
</tbody>
</table>

How many more students are in the fourth grade at Hampton Elementary than Riverview Elementary? Record your answer and fill in the bubbles below. Be sure to use correct place value.

2 Using the grid below, what is $0.8 - 0.12$?

3 The pictograph below shows the number of books of each genre in a school library.

How many more mystery books are in the library than non-fiction books?

- **A** 250
- **B** 375
- **C** 500
- **D** 625
4 What is the sum of $12.3 + 1.52 + 0.06$?
F 1.58
G 12.36
H 13.82
J 13.88

5 At a yard sale, Jamal bought 2 of the items from the chart below.

<table>
<thead>
<tr>
<th>Yard Sale Items</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snorkel</td>
<td>$3.50</td>
</tr>
<tr>
<td>Baseball glove</td>
<td>$6.75</td>
</tr>
<tr>
<td>Book</td>
<td>$1.50</td>
</tr>
<tr>
<td>CD</td>
<td>$3.25</td>
</tr>
<tr>
<td>Sweater</td>
<td>$4.50</td>
</tr>
</tbody>
</table>

If he spent exactly $8.25, what 2 items did he buy?
A CD and baseball glove
B Baseball glove and book
C Sweater and snorkel
D Not here

6 A seafood company tracks how many pounds of shrimp were sold over a 3-month period. In June, 678 pounds were sold. In July, 1,140 pounds were sold. In August, 1,023 pounds were sold. How many total pounds of shrimp did the seafood company sell during this 3-month period?
F 2,631
G 2,715
H 2,741
J 2,841

7 Maria spends $6.89 at the grocery store. She gives the cashier a $10 bill. How much change should Maria receive?
A $3.11
B $3.29
C $4.11
D $4.21

8 What is the missing digit in the addition problem below?
\[ \begin{align*}
2,749 + & \underline{81} \\
\hline
3,630 & 
\end{align*} \]
F 6
G 7
H 8
J 9

9 Rachel records the amount of trash she recycles over a 3-week period in the chart below.

<table>
<thead>
<tr>
<th>Trash Recycled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Week 1</td>
</tr>
<tr>
<td>Week 2</td>
</tr>
<tr>
<td>Week 3</td>
</tr>
</tbody>
</table>

How many kilograms of trash did Rachel recycle over the 3 weeks?
A 92.88
B 97.73
C 150.49
D 155.55
TEKS 4.4  Number, operation, and quantitative reasoning  The student multiplies and divides to solve meaningful problems involving whole numbers.

1  Mario bakes 35 cakes in his bakery. He needs to place all of the cakes on shelves to cool. If each shelf holds 7 cakes, how many shelves does Mario need?
   A  5  
   B  6  
   C  7  
   D  8

2  For a fall festival, 5 crates of pumpkins are ordered. There are 36 pumpkins in each crate. How many pumpkins are ordered for the fall festival?
   F  91  
   G  150  
   H  160  
   J  180

3  Which list of numbers are all multiples of the number 7?
   A  0, 7, 11, 15, 19  
   B  7, 14, 21, 28, 35  
   C  7, 14, 17, 21, 24  
   D  7, 10, 13, 16, 19

4  Look at the array below.

What expression is represented by the array?
   F  7 × 1  
   G  6 × 4  
   H  8 × 3  
   J  5 × 5

5  Which of the following inequalities is NOT true?
   A  200 ÷ 2 > 90 ÷ 9  
   B  84 ÷ 7 < 150 ÷ 3  
   C  100 ÷ 10 < 99 ÷ 9  
   D  24 ÷ 6 < 28 ÷ 7

6  The Hughes family collected 144 shells on a trip to the beach. The 3 Hughes sisters agreed to share the shells equally. How many shells did each sister receive?
   F  44  
   G  48  
   H  52  
   J  54
7. Which expression is represented by the picture below?

- A: $5 \times 5$
- B: $5 \times 6$
- C: $4 \times 3$
- D: $5 \times 4$

8. Using the arrays below, what is $3 \times 144$?

- F: 312
- G: 322
- H: 422
- J: 432

9. Jim practiced the guitar a total of 315 minutes last week. If he practiced the same amount of time each day, how long did he practice each day?

- A: 40 minutes
- B: 45 minutes
- C: 46 minutes
- D: Not here

10. A bakery slices each loaf of bread into 16 slices. How many slices of bread are in 55 loaves?

- F: 355
- G: 385
- H: 850
- J: 880

11. Mr. Green has 96 books. He wants to organize them in his bookcase so that each shelf has an equal number of books. If Mr. Green’s bookcase has 8 shelves, how many books should he place on each shelf?

- A: 12
- B: 13
- C: 22
- D: 86

12. Which expression is modeled using the arrays below?

- F: $112 \div 3$
- G: $12 \div 3$
- H: $336 \div 3$
- J: $333 \div 3$

13. Which symbol makes the inequality below true?

$11 \times 7 \square 12 \times 6$

- A: $>$
- B: $<$
- C: $=$
- D: Not here
14 The pictograph below displays how many miles the fourth grade teachers traveled during their summer vacation.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Miles Traveled During Summer Vacation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Harrison</td>
<td>75</td>
</tr>
<tr>
<td>Ms. Starr</td>
<td>150</td>
</tr>
<tr>
<td>Mr. Lennon</td>
<td>225</td>
</tr>
<tr>
<td>Mr. McCartney</td>
<td>Not here</td>
</tr>
</tbody>
</table>

How many more miles did Mr. Lennon travel during summer vacation than Ms. Harrison?
- F 75
- G 150
- H 225
- J Not here

15 In football, a field goal is worth 3 points. How many points are 7 field goals worth?
- A 10
- B 14
- C 21
- D 24

16 A store gave coupons to every 7th customer last Saturday. If 469 customers visited the store that day, how many coupons did the store give away?
- F 56
- G 66
- H 67
- J 76

17 Look at the equation below. 
\[ 6 \times 6 = \square \times 9 \]
What is the missing factor?
- A 3
- B 4
- C 5
- D 6

18 Which number is divisible by 5?
- F 206
- G 315
- H 411
- J 988

19 If there are 3 feet in a yard, how many feet are in 297 yards?
- A 99 feet
- B 300 feet
- C 891 feet
- D 900 feet
20 Which figure below represents the number sentence $3 \times 5 = 15$?

F

\[
\begin{array}{cccc}
\ast & \ast & \ast \\
\ast & \ast & \ast \\
\end{array}
\]

G

\[
\begin{array}{cccccc}
\ast & \ast & \ast & \ast & \ast & \ast \\
\ast & \ast & \ast & \ast & \ast & \ast \\
\end{array}
\]

H

\[
\begin{array}{cccc}
\ast & \ast & \ast & \ast \\
\ast & \ast & \ast & \ast \\
\ast & \ast & \ast & \ast \\
\end{array}
\]

J

\[
\begin{array}{cccc}
\ast & \ast & \ast & \ast \\
\ast & \ast & \ast & \ast \\
\end{array}
\]

21 The fourth grade at Greencroft Elementary School took a field trip. A total of 112 students went on the field trip and were divided into groups of 8. How many chaperones were needed for the field trip so that each group had a chaperone?

A 12
B 13
C 14
D 15

22 Lola went to a baseball game with her family. There were 6 outs in each inning. If there were 9 innings in the game, how many outs were there?

F 12
G 27
H 45
J 54

23 Jorge and Chelsea work on their math homework together. Chelsea asks Jorge for help with the multiplication problem $11 \times 9$. What is the correct answer to the multiplication problem $11 \times 9 = \square$?

A 20
B 89
C 99
D 119
1. Julio buys a shirt for $28 and a jacket for $53. What is the best estimate of how much money Julio spends?
   - A $60
   - B $70
   - C $80
   - D $90

2. Jenna bought the items below for school. About how much money did she spend?
   - F $3
   - G $4
   - H $7
   - J $10

3. An elementary school is selling tickets for a music program. There will be 4 performances and the auditorium seats 282 people. If all of the shows sell out, what is a good estimate of how many tickets will be sold?
   - A 800
   - B 1,000
   - C 1,200
   - D 1,500

4. Kenji is planning to buy a new computer that costs $989.99. If Kenji saves the same amount of money for 8 weeks, about how much does he need to save each week?
   - F $100
   - G $110
   - H $125
   - J $150

5. Zach exercises every day. If he does 18 push-ups a day, about how many push-ups will he do in 15 days?
   - A 100
   - B 150
   - C 200
   - D 300
6. There are 31 tables in a restaurant. Each table can seat up to 9 people. What is the best estimate for how many people may be seated in the restaurant at one time?
   F 100  
   G 200  
   H 300  
   J 400  

7. One hundred seventy-five students are going to attend a baseball game. The bleachers in the stadium have rows that seat 10 people. About how many rows of bleachers must the teacher reserve so every student has a seat?
   A 15  
   B 18  
   C 22  
   D 25  

8. Jeb is moving from Maryland to Texas and wants to research both states. He found that Texas has an area of 268,601 square miles and Maryland has an area of 12,295 square miles. About how much larger is Texas than Maryland?
   F 200,000 square miles  
   G 260,000 square miles  
   H 280,000 square miles  
   J Not here  

9. Ethan wants to visit San Antonio, Dallas, and Houston while on vacation in Texas. The distances between these three cities are shown in the figure below. To the nearest 10 miles, about how far will Ethan travel in order to visit all three cities?

   - San Antonio to Houston: 198 miles  
   - San Antonio to Dallas: 272 miles  
   - Dallas to Houston: 241 miles  

   A 440 miles  
   B 470 miles  
   C 510 miles  
   D 710 miles
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

**TEKS 4.6 Patterns, relationships and algebraic thinking** The student uses patterns in multiplication and division.

1. What number completes the pattern shown below?
   
   \[3 \times 1 = 3\]
   \[3 \times 10 = 30\]
   \[3 \times 100 = \square\]
   
   Record your answer and fill in the bubbles below. Be sure to use correct place value.

   9
   8
   7
   6
   5
   4
   3
   2
   1
   0

2. Which number sentence is in the same fact family as \(72 \div 8 = ?\)
   
   \[F \ 8 + \square = 72\]
   \[G \ \square - 8 = 72\]
   \[H \ 8 \times \square = 72\]
   \[J \ 72 \times 8 = \square\]

3. Carmen has 4 dozen eggs. Which number sentence determines the number of eggs Carmen has?
   
   \[A \ 12 \times 4 = \square\]
   \[B \ 12 - 4 = \square\]
   \[C \ 12 \div 4 = \square\]
   \[D \ 12 + 4 = \square\]

4. Lilly bakes 24 brownies. She gives an equal number of brownies to each of her 8 friends. How many brownies did each friend receive?
   
   \[F \ 2\]
   \[G \ 3\]
   \[H \ 4\]
   \[J \ 6\]

5. Which number sentence completes the pattern shown below?
   
   \[12,000 \div 3 = 4,000\]
   \[1,200 \div 3 = 400\]
   \[120 \div 3 = 40\]
   
   \[A \ 12 \times 3 = 36\]
   \[B \ 12 + 3 = 15\]
   \[C \ 12 - 3 = 9\]
   \[D \ 12 + 3 = 4\]
6 A hot dog stand sold 20 hot dogs in 30 minutes. If sales continue at this rate, how many hot dogs will the stand sell in 90 minutes?
   F 40
   G 60
   H 80
   J 100

7 Which pair of numbers correctly completes the equation below?
   \( \square \times 100 = \square \)
   A 51 and 510
   B 51 and 5,100
   C 51 and 51,000
   D Not here

8 This year 60 players signed up to play lacrosse. The players were divided into 6 teams. Which number sentence is in the same fact family as \( 60 \div 6 = \square \)?
   F \( 6 \times \square = 60 \)
   G \( 60 \times 6 = \square \)
   H \( \square \times 60 = 6 \)
   J \( 6 + 60 = \square \)

9 Which number sentence does NOT belong in the same fact family as \( 9 \times 5 = 45 \)?
   A \( 45 \div 9 = 5 \)
   B \( 45 \div 5 = 9 \)
   C \( 5 + 40 = 45 \)
   D \( 5 \times 9 = 45 \)

10 Yuri arranges his trading cards in the pattern shown below.

Which number sentence represents the pattern Yuri arranged?
   F \( 6 + 3 = 9 \)
   G \( 6 + 6 = 12 \)
   H \( 3 \times 6 = 18 \)
   J \( 3 \times 3 = 9 \)

11 In which number sentence does the number 6 make the equation true?
   A \( 42 \div \square = 7 \)
   B \( 42 \times 7 = \square \)
   C \( \square \times 42 = 7 \)
   D \( \div 7 = 42 \)

12 Caroline solved the multiplication problem below incorrectly.

\[
\begin{array}{c}
100 \\
\times 13 \\
\hline
130
\end{array}
\]

What could Caroline do to her wrong answer to get the correct solution?
   F Add 13 to her solution
   G Multiply her solution by 10
   H Multiply her solution by 13
   J Multiply her solution by 100
TEKS 4.7  Patterns, relationships and algebraic thinking  The student uses organizational structures to analyze and describe patterns and relationships.

1 The table below shows numbers that were put into a machine and numbers that came out of the machine.

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>38</td>
<td>36</td>
</tr>
</tbody>
</table>

Based on the pattern in the table, what was done to each number put in the machine?

A The number had 2 added to it.
B The number had 2 subtracted from it.
C The number was multiplied by 2.
D The number was divided by 2.

2 Each number in Set A is related to the number below it in Set B.

<table>
<thead>
<tr>
<th>A</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>18</td>
<td>36</td>
<td>54</td>
<td>72</td>
</tr>
</tbody>
</table>

What is the relationship between the numbers in Set A and the numbers in Set B?

F Set A is multiplied by 8 to get Set B.
G Set A is multiplied by 9 to get Set B.
H Set A is divided by 8 to get Set B.
J Set A is divided by 9 to get Set B.

3 Each table below shows numbers that were put into a machine and the numbers that came out of the machine. Which table shows numbers that were divided by 3 in the machine?

<table>
<thead>
<tr>
<th>A</th>
<th>In</th>
<th>9</th>
<th>15</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Out</td>
<td>6</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>B</td>
<td>In</td>
<td>12</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Out</td>
<td>2</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>In</td>
<td>18</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Out</td>
<td>6</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>D</td>
<td>In</td>
<td>21</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Out</td>
<td>24</td>
<td>30</td>
<td>33</td>
</tr>
</tbody>
</table>

4 What number completes the pattern shown in the table below?

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

F 26
G 34
H 40
J 45
TAKS Practice

OBJECTIVE 3

Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

TEKS 4.8 Geometry and spatial reasoning The student identifies and describes attributes of geometric figures using formal geometric language.

1 What 3-dimensional geometric shape may be constructed from the figure below?

A Triangular prism
B Rectangular prism
C Triangular pyramid
D Rectangular pyramid

2 Margi drew the triangle below.

Which of the angles are obtuse?
F Angles A and B
G Angles A and C
H Angles B and C
J There are no obtuse angles.

3 How many of the shapes shown below are cones or cylinders?

A 3
B 4
C 5
D 6

4 Jill traced the face of a cube for a science project. What 2-dimensional shape did she draw?
F Trapezoid
G Hexagon
H Triangle
J Square

5 Which drawing shows an example of perpendicular lines?

A
B
C
D
6 Which quadrilateral has only one pair of parallel sides?

F  
G  
H  
J

7 Using the clues below, what 3-dimensional geometric figure is being described?

Who Am I?
I have 6 vertices.
I have 9 edges.
I have 5 faces.

A Triangular pyramid  
B Cube  
C Triangular prism  
D Cone

8 Which type of angle is shown by the hands of the clock?

112
6
5
3
2
9
8
7
10
3
3
3

F right  
H obtuse  
G acute  
J straight

9 Which figure below can NOT construct a 3-dimensional cube?

A  
B  
C  
D

10 Minya gave the clues below to her classmates to help them guess what geometric shape she chose.

It has 6 faces that are congruent.
It has 8 vertices.
It has 12 edges.

What shape did Minya choose?

F Cylinder  
G Cube  
H Cone  
J Triangular prism
TAKS Practice (continued)

11 Which of the following pictures does NOT have a pair of parallel lines?

A

B

C

D

12 Which describes the number of edges, vertices, and faces in a rectangular prism as shown below?

F 6 edges, 8 vertices, and 12 faces
G 8 edges, 12 vertices, and 6 faces
H 12 edges, 6 vertices, and 8 faces
J 12 edges, 8 vertices, and 6 faces

13 What is the name of the figure shown below?

A circle
B rectangle
C cylinder
D cone

14 Kenny constructed the 2 geometric figures shown below.

What geometric figures did Kenny construct?
F A triangular prism and a cube
G A triangular pyramid and a rectangular prism
H A triangular prism and a rectangular prism
J A triangular pyramid and a cylinder

15 Look at the figure below.

What type of angle is \( \angle ABC \)?
A right
B straight
C obtuse
D acute

Mastering the TAKS, Grade 4
TEKS 4.9  Geometry and spatial reasoning  The student connects transformations to congruence and symmetry.

1. Look at the figure below. What transformation took place?

   A. Reflection  
   B. Translation  
   C. Rotation  
   D. Not here

2. Mary Jane makes a quilt using patches that have exactly four lines of symmetry. Which shape does Mary Jane use for her patches?

   F.  
   G.  
   H.  
   J.

3. Which shape is congruent to the figure below?

   A.  
   B.  
   C.  
   D.

4. Which pair of figures shows a reflection?

   F.  
   G.  
   H.  
   J.
5 Which transformation shows figures that are NOT congruent?

A

B

C

D

6 How many lines of symmetry does this rectangle have?

F 0
G 1
H 2
J 4

7 The figures below form a pattern of rotations. What are the next two shapes in the pattern?

A

B

C

D

8 Which letter has two lines of symmetry?

F R
G H
H F
J Z

9 What transformation is represented from one figure to the next figure?

A Translation
B Rotation
C Reflection
D Not here
10 What type of transformation is made multiple times to create the figure below?

F Translation
G Rotation
H Reflection
J Not here

11 How many lines of symmetry does the figure below have?

Record your answer and fill in the bubbles below. Be sure to use correct place value.

12 Which of the shapes shown below are congruent?

A M and O
B N and P
C M and N
D O and P
TEKS 4.10  Geometry and spatial reasoning  The student recognizes the connection between numbers and their properties and points on a line.

1 Which number line shows the fraction \( \frac{5}{6} \) represented by point \( A \)?

A  

B  

C  

D  

2 What point represents 0.5 on the number line below?

A  

B  

C  

D  

3 What fraction is represented by point \( Z \) on the number line below?

A  \( \frac{1}{4} \)  

B  \( \frac{3}{4} \)  

C  \( \frac{1}{2} \)  

D  \( \frac{2}{10} \)

4 What point represents 0.7 on the number line below?

A  

B  

C  

D  

36 Mastering the TAKS, Grade 4
TAKS Practice

OBJECTIVE 4

Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

TEKS 4.11 Measurement The student applies measurement concepts. The student is expected to estimate and measure to solve problems involving length (including perimeter) and area. The student uses measurement tools to measure capacity/volume and weight/mass.

1. Susanna put two identical necklaces and all of her bracelets on a scale. Together all the jewelry weighed 1 pound. If the bracelets weigh 10 ounces, how many ounces does each necklace weigh?
   - A 2 ounces
   - B 3 ounces
   - C 5 ounces
   - D 6 ounces

2. Which is the best estimate of the capacity of a soda can?
   - F 2 ounces
   - G 60 ounces
   - H 1 quart
   - J 1 gallon

3. Kristie’s little brother likes to play with blocks. He makes the figure below with cubes. What is the volume of the figure?
   - A 4 cubic units
   - B 8 cubic units
   - C 12 cubic units
   - D Not here

4. Maria’s pool is shaped like a rectangle. Using the dimensions below, what is the area of Maria’s pool?
   - F 30 square feet
   - G 60 square feet
   - H 120 square feet
   - J 200 square feet
5 Which of the following would most likely be measured in grams?
   A. computer
   B. pencil
   C. mathematics book
   D. truck

6 In the long jump, Dante jumps 72 inches. What is the length of his jump in yards?
   F. 1 yard
   G. 2 yards
   H. 3 yards
   J. Not here

7 Alexis is helping her mother wash windows. She carries a bucket filled with 3 gallons of water to use on the windows. How many quarts is equal to 3 gallons?
   A. 4 quarts
   B. 6 quarts
   C. 8 quarts
   D. 12 quarts

8 Using the ruler found on the Mathematics Chart, what is the height of the book shown below?
   F. 1 1/2 inches
   H. 2 1/2 inches
   G. 2 inches
   J. 3 inches

9 What is the volume of the rectangular prism shown below?
   A. 8 cubic units
   B. 12 cubic units
   C. 16 cubic units
   D. 32 cubic units

10 Rose needs 36 inches of lace for an art project. How many feet of lace does she need to buy?
    F. 1 foot
    H. 3 feet
    G. 2 feet
    J. 6 feet
11 Each cubic unit in the figure below has a volume of 3 cubic inches. What is the volume of this figure?

A 30 cubic units
B 60 cubic units
C 75 cubic units
D 90 cubic units

12 Using the ruler on the Mathematics Chart, what is the length of the toy truck shown below?

F 2 cm
G 3 cm
H 4 cm
J Not here

13 Which statement best describes the difference between weight and mass?
A Weight is used to measure food and mass is used to measure non-living things.
B Mass is used only in science class and weight is used only in mathematics class.
C There is no difference between weight and mass.
D Weight is how heavy an object is and mass is how much matter an object has.

14 Which of the following items would most likely weigh 5 pounds?
F bag of dog food
G crayon
H fourth-grade student
J go-cart
15 What is the volume of the figure below?

A 20 cubic units  
B 24 cubic units  
C 30 cubic units  
D 42 cubic units

16 Which is the best estimate of the weight of a hot dog?

F 4 ounces  
G 40 ounces  
H 4 pounds  
J 40 pounds

17 A Texas longhorn can grow horns up to 7 feet in length. What is this length in inches?

Record your answer and fill in the bubbles below. Be sure to use correct place value.

18 Each cubic unit in the figure below has a volume of 2 cubic inches. What is the volume of this figure?

F 120 cubic units  
G 180 cubic units  
H 240 cubic units  
J 280 cubic units
19 Using the ruler on the Mathematics Chart, what is the best measurement for the length of the line segment \( AC \)?

\[
\begin{array}{c}
A \quad 6\frac{1}{2} \text{ in ches} \\
B \quad 2\frac{1}{4} \text{ in ches} \\
C \quad 2\frac{1}{2} \text{ in ches} \\
D \quad 3 \text{ inches}
\end{array}
\]

20 Which of the following is the best estimate of the area of a classroom floor?

\[
\begin{array}{c}
F \quad 5 \text{ square feet} \\
G \quad 50 \text{ square feet} \\
H \quad 500 \text{ square feet} \\
J \quad 5,000 \text{ square feet}
\end{array}
\]

21 Using the ruler on the Mathematics Chart, what is the best measurement for the perimeter of the square below?

\[
\begin{array}{c}
A \quad 5 \text{ inches} \\
B \quad 6 \text{ inches} \\
C \quad 7 \text{ inches} \\
D \quad 10 \text{ inches}
\end{array}
\]

22 A football field is 120 yards long and 160 feet wide. What is the area in square feet of a football field?

\[
\begin{array}{c}
F \quad 280 \text{ square feet} \\
G \quad 1,920 \text{ square feet} \\
H \quad 19,200 \text{ square feet} \\
J \quad 57,600 \text{ square feet}
\end{array}
\]
TEKS 4.12 Measurement The student applies measurement concepts. The student measures time and temperature (in degrees Fahrenheit and Celsius).

1 Kerry starts a triathlon at 11:35 A.M. She finishes in 3 hours and 30 minutes. What time does she finish?
   A 2:35 P.M.
   B 3:35 P.M.
   C 3:00 P.M.
   D 3:05 P.M.

2 Manuel goes to the barber to get his hair cut. He sits down in the barber's chair at 5:40 P.M. If he is finished at 6:10 P.M., how long does it take to get his hair cut?
   F 30 minutes
   G 50 minutes
   H 1 hour 10 minutes
   J 1 hour 30 minutes

3 At breakfast, the temperature outside was 44°F. By lunch, the temperature had risen 12°. By dinner, the temperature had dropped 4°. What was the temperature at dinner?
   A 32°F
   B 52°F
   C 56°F
   D 60°F

4 Kang arrives at school at 8:15 in the morning. It takes Kang 45 minutes to get ready for school, and 30 minutes to travel to school. What time should Kang wake up to be at school on time?
   

5 William's mother is cooking dinner. She must pre-heat the oven to 375°F. The oven temperature is currently 210°F. How many degrees more does the oven need to rise to reach 375°F?
   A 65°F
   B 135°F
   C 165°F
   D 195°F
6 The theatre at a nature museum posted the schedule below.

<table>
<thead>
<tr>
<th>Film</th>
<th>Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mysteries of the Sea</td>
<td>10:15 A.M.</td>
<td>11:45 A.M.</td>
</tr>
<tr>
<td>Natural Wonders</td>
<td>11:45 A.M.</td>
<td>12:15 P.M.</td>
</tr>
<tr>
<td>Animals Do Silly Things</td>
<td>12:30 P.M.</td>
<td>1:30 P.M.</td>
</tr>
<tr>
<td>Look to the Sky</td>
<td>1:45 P.M.</td>
<td>3:45 P.M.</td>
</tr>
</tbody>
</table>

Which movie runs the longest amount of time?

F Mysteries of the Sea
G Natural Wonders
H Animals Do Silly Things
J Look to the Sky

7 Jon works for 3 hours and 20 minutes every evening. If he arrives at work at 5:40 P.M., what time does he leave work?

A 8:00 P.M.
B 8:40 P.M.
C 9:00 P.M.
D 9:20 P.M.

8 Temperature can be measured in degrees Fahrenheit or degrees Celsius. Which statement is true about measuring in degrees Celsius?

F The Celsius scale and the Fahrenheit scale are the same.
G Celsius is the metric scale used for measuring temperature.
H The Celsius scale is commonly used in the United States for measuring temperature.
J None of the statements are true.

9 Mrs. Jones reserves the community hall one afternoon for a craft fair. She reserves the hall for 4 hours beginning at the time shown on the clock below. What time should the craft fair end by?

A 4:35 P.M.
B 5:05 P.M.
C 5:35 P.M.
D 6:35 P.M.
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

**TEKS 4.13 Probability and statistics**
The student solves problems by collecting, organizing, displaying, and interpreting sets of data.

1. Miss Brown has a bag of buttons that she will use to sew costumes for a school play.

   If Miss Brown chooses a button from the bag without looking, what is the probability that she will choose a round button?

   - A \(\frac{6}{10}\)
   - B \(\frac{4}{10}\)
   - C \(\frac{4}{6}\)
   - D \(\frac{4}{4}\)

2. Kim has the following shapes in a box. If Kim chooses a shape without looking, what is the probability that she will choose an arrow?

   - F \(\frac{2}{9}\)
   - G \(\frac{7}{9}\)
   - H \(\frac{2}{10}\)
   - J Not here

3. A nature club goes bird watching. Each member records the number of birds they observed. Their data is displayed in the bar graph below.

   What is the range of the data in the bar graph?

   - A 1
   - B 4
   - C 8
   - D 13
4. When flipping 2 coins at the same time, what are all of the possible outcomes? (H = Heads, T = Tails)
   F. HH
   G. TT
   H. HH, TT
   J. HH, HT, TH, TT

5. The bar graph below shows the number of hours Hank spent cutting grass for 6 weeks.

   If Hank earns $5 an hour cutting grass, how many dollars did he earn during the two weeks he worked the most hours?
   Record your answer and fill in the bubbles on the grid below. Be sure to use correct place value.

6. Joe and Tanya wanted to figure out the probability of winning a game at the state fair.
   TO WIN: Players must pick a fish with a number less than 6
   4 3
   2 5
   6

   What is the probability of winning the game?
   F. 2 out of 5
   G. 3 out of 5
   H. 4 out of 5
   J. 5 out of 5

7. Using the spinner below, what is the probability of landing on a multiple of the number 4?

   A. \( \frac{2}{6} \)
   B. \( \frac{1}{6} \)
   C. \( \frac{4}{6} \)
   D. \( \frac{5}{6} \)
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

TEKS 4.14 Underlying processes and mathematical tools. The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school.

1. The water park has a slide that is 415 feet long and a slide that is 330 feet long. What is the difference in the lengths of the two water slides?
   - A 85 feet
   - B 145 feet
   - C 185 feet
   - D 745 feet

2. Mr. Day’s car averages 25 miles per gallon of gas. The gas tank holds 15 gallons. How would the number of miles Mr. Day can drive on one full tank of gas be determined?
   - F Divide the number of miles the car averages each day by how many gallons the tank holds.
   - G Multiply the number of gallons the tank holds by the average miles per gallon of gas.
   - H Add the average miles per gallon of gas to the number of gallons the tank holds.
   - J Subtract the number of gallons the tank holds from the number of miles the car averages each day.

3. Max spends $72 at the Farmer’s Market. He buys a pie for $12, a small piece of furniture for $49, and 5 pounds of cashews. How much did the cashews cost?
   - A $5
   - B $11
   - C $23
   - D $60

4. What are two numbers that have a product of 20 and a sum of 9?
   - F 6 and 3
   - G 8 and 2
   - H 4 and 5
   - J 10 and 2

5. Michael buys a large soda and a hamburger. The hamburger costs twice as much as the soda. If Michael paid a total of $3.75, how much did the hamburger cost?
   - A $2.00
   - B $1.75
   - C $2.50
   - D $1.25

6. Mercedes wants to invite 30 people to her brother’s surprise party. If invitations are sold in packs of 8 and cost $4 per pack, how much will Mercedes spend on invitations?
   - F $12
   - G $14
   - H $16
   - J $20

46 Mastering the TAKS, Grade 4
7 Ray brings 100 cookies on a camping trip. After he and his family eat some, there are 64 cookies left. Which question can be answered with this information?
A How long is the camping trip?
B How many cookies did each person eat?
C How many people ate cookies?
D How many cookies were eaten?

8 A music teacher recorded the grades of students in music class using the graph below.

Which statement is supported by the bar graph?
F More students received an A than a C.
G More than 18 students received a grade of C or higher.
H The number of students who received an A plus the number of students who received a C equals the number of students who received a B.
J Fewer than 3 students received an A.

9 The table below shows the regular prices of T-shirts and the prices of T-shirts with a coupon.

<table>
<thead>
<tr>
<th>T-Shirt Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Price</td>
</tr>
<tr>
<td>$25</td>
</tr>
<tr>
<td>$23</td>
</tr>
<tr>
<td>$21</td>
</tr>
</tbody>
</table>

Based on the table, what is the discount offered with the coupon?
A Subtract $4 from the regular price of the T-shirt.
B Subtract $6 from the regular price of the T-shirt.
C Receive 2 T-shirts for the price of 1.
D Receive half off the regular price.

10 The fourth grade is going on an ecology field trip. Each group of 4 students will need an adult helper for paddling the canoe. What operation can be used to find the number of adult helpers needed?
F Add 4 to the number of students going on the field trip.
G Divide the number of students going on the field trip by 4.
H Subtract 5 from the number of students going on the field trip.
J Multiply 5 times the number of students going on the field trip.
11 For a science fair, Lenore wants to record the cities in Texas that received more than 12 inches of rainfall last year and the amount of rain each city received. What is the best way for Lenore to organize this information?
A List all the cities in Texas in order of their population.
B Draw a picture of the flowers that flourish with the rainfall.
C Make a table to list the cities and their rainfall amounts.
D Draw a map showing the distance from each city.

12 The lengths of 3 trails at a ski resort are shown in the table below.

<table>
<thead>
<tr>
<th>Trail</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>342 yards</td>
</tr>
<tr>
<td>2</td>
<td>208 yards</td>
</tr>
<tr>
<td>3</td>
<td>198 yards</td>
</tr>
</tbody>
</table>

Which trail is 624 feet long?
F Trail 1
G Trail 2
H Trail 3
J Not here

13 Joe keeps track of how much money he has in his piggy bank by graphing the number of coins he has.

How much money does Joe have in nickels?
A $1.00
B $1.50
C $3.75
D $35.50

14 Use the graph above. If Joe gave all of his dimes to his sister, how much did he give her in dollars? Record your answer and fill in the bubbles on the grid below. Be sure to use correct place value.

---

48 Mastering the TAKS, Grade 4
TAKS Practice (continued)

15 Pam wants to buy each of her 6 friends a slice of pie. Each slice of pie costs $2 or 3 slices of pie cost $5. Whole pies have 5 slices and cost $7. What is the least amount of money Pam can spend to purchase 6 slices of pie?

A $9  
B $10  
C $11  
D $12

16 There are 6 branches on a tree on the playground. There are 3 limbs on every branch of the tree. How many limbs are on the tree?

F 9  
G 12  
H 15  
J 18

17 The table below shows the number of pages of her book Cecilia read each night last week.

<table>
<thead>
<tr>
<th>Night</th>
<th>Number of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>13</td>
</tr>
<tr>
<td>Tuesday</td>
<td>17</td>
</tr>
<tr>
<td>Wednesday</td>
<td>25</td>
</tr>
<tr>
<td>Thursday</td>
<td>8</td>
</tr>
<tr>
<td>Friday</td>
<td>15</td>
</tr>
<tr>
<td>Saturday</td>
<td>22</td>
</tr>
<tr>
<td>Sunday</td>
<td>14</td>
</tr>
</tbody>
</table>

What is the total number of pages Cecilia read last week?

A 100 pages  
B 114 pages  
C 118 pages  
D 141 pages
1 The table below shows the number of vertices for different numbers of cubes.

<table>
<thead>
<tr>
<th>Number of Cubes</th>
<th>Number of Vertices</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>48</td>
</tr>
<tr>
<td>10</td>
<td>80</td>
</tr>
<tr>
<td>15</td>
<td>120</td>
</tr>
</tbody>
</table>

Which best describes the relationship between the number of cubes and the number of vertices?

A Number of cubes + 24 = Number of vertices
B Number of cubes − 32 = Number of vertices
C Number of cubes × 6 = Number of vertices
D Number of cubes × 8 = Number of vertices

2 At the aquarium, there are twice as many sand sharks as sea rays. There are 4 fewer hammerhead sharks than sand sharks. If there are 12 hammerhead sharks, how many sea rays are there?

F 8
G 12
H 16
J 20

3 Cory, Bill and Pat each play on one sports team. They either play lacrosse, baseball or basketball. Cory does not play baseball or lacrosse and Bill does not play lacrosse or basketball. What team is each person on?

A Bill is on the baseball team, Cory is on the basketball team, and Pat is on the lacrosse team.
B Bill is on the baseball team, Cory is on the lacrosse team, and Pat is on the basketball team.
C Bill is on the basketball, Cory is on the baseball team, and Pat is on the lacrosse team.
D Bill is on the lacrosse team, Cory is on the baseball team, and Pat is on the basketball team.

4 Mrs. Clark needs to buy some donuts for a brunch. A dozen donuts cost $3.79. What question needs to be answered in order to determine how much money Mrs. Clark will spend on the donuts?

F How many people will eat donuts at the brunch?
G What are the favorite types of donuts?
H How many dozen donuts does Mrs. Clark need for the brunch?
J Are the donuts on sale?
Sophia keeps track of how she spends her monthly allowance by recording her purchases on a chart.

<table>
<thead>
<tr>
<th>Sophia's Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacket</td>
</tr>
<tr>
<td>Running Shoes</td>
</tr>
<tr>
<td>Snacks</td>
</tr>
<tr>
<td>Entertainment</td>
</tr>
</tbody>
</table>

Which bar graph correctly displays Sophia’s expenses?

A

B

C

D Not here

Akita goes bowling with some friends. She bowls 3 games, buys a large soda for $1.50, buys a piece of pizza for $3.00, and rents bowling shoes for $0.75. What information is needed to find the total amount of money Akita spent at the bowling alley?

F How much did each of Akita’s friends spend at the bowling alley?

G What were the names of Akita’s friends?

H What were Akita’s bowling scores?

J How much did each game cost?

There are approximately 250 births in the world every minute. According to this statistic, which of the following statements is NOT true?

A There are approximately 360,000 births every day.

B There are approximately 2,520,000 births every week.

C There are approximately 131,040,000 births every year.

D There are always 125 girls and 125 boys born each day.

Brandon’s soccer practice is scheduled to end at quarter till seven. What time should Brandon’s mom pick him up from practice?

F 6:15

G 6:45

H 7:15

J 7:45
1. Laura draws the following set of shapes.

Which statement best describes the shapes that Laura drew?
A. They all have only acute angles.
B. They all have at least 1 obtuse angle.
C. They all have a right angle.
D. Not here

2. Which of the following shapes is NOT a triangle?

F. 
G. 
H. 
J. 

3. During a bike ride on a trail, Leslie counts 8 deer in two minutes. At this rate, how many deer will Leslie see in 5 minutes?
A. 16
B. 20
C. 24
D. 32

4. Jennifer buys note cards by the box. The table below shows how many note cards are in different numbers of boxes.

<table>
<thead>
<tr>
<th>Number of Boxes</th>
<th>Number of Note Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>125</td>
</tr>
<tr>
<td>8</td>
<td>200</td>
</tr>
<tr>
<td>10</td>
<td>?</td>
</tr>
</tbody>
</table>

Based on the data in this table, what is the rule to find the number of note cards?
F. Add 20 to the number of boxes
G. Subtract 25 from the number of boxes
H. Multiply the number of boxes by 25
J. Divide the number of boxes by 5

5. Using the rule from problem number 4, how many note cards are in 10 boxes?
A. 25
B. 40
C. 125
D. 250
6 Debbi runs on her treadmill everyday. The table below shows the total number of miles she ran on her treadmill after several days.

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Number of Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>14</td>
<td>?</td>
</tr>
</tbody>
</table>

If this pattern continues, how many miles will Debbi have run in 14 days?
F 21
G 78
H 97
J 98

7 Thorpe wants to find two whole numbers whose sum is 62 and difference is 6. He believes that 30 and 32 are the whole numbers that will solve the problem. Why is Thorpe's solution incorrect?
A The sum of 30 and 32 is not 62.
B The difference between 30 and 32 is 4.
C The difference between 30 and 32 is not 6.
D Not here

8 Listed below is a pattern of numbers.
4, 26, 48, 70, 92, ___
How can the next number in the pattern be determined?
F Multiply the previous number by 4
G Add 22 to the previous number
H Subtract 26 from the previous number
J Add 16 to the previous number

9 What number would come next in the pattern in problem number 8?
A 74
B 100
C 114
D Not here

10 John could throw a football 15 yards at the age of 6. He could throw for 20 yards at the age of 8 and 25 yards at the age of 10. According to this pattern, how far should John be able to throw a football when he is 16 years old?
F 30 yards
G 35 yards
H 40 yards
J 45 yards
<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tr>
<td>1</td>
<td>A</td>
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<td>C</td>
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<td>2</td>
<td>F</td>
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<td>3</td>
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<td>4</td>
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<td>6</td>
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<td>11</td>
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<td>12</td>
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<td>F</td>
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<td>J</td>
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<tr>
<td>41</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
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<td>42</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>J</td>
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</tr>
</tbody>
</table>

Record your answers by coloring in the appropriate bubble for the best answer to each question.
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

1. Which type of angle best describes angle $Q$?
   - A. Acute
   - B. Obtuse
   - C. Right
   - D. Not Here

2. The desk in Alicia’s bedroom is 4 feet long and 3 feet wide. What is the area of the desk?
   - F. 7 square feet
   - G. 12 square feet
   - H. 70 square feet
   - J. 120 square feet

3. Which of these units would best measure the mass of an apple?
   - A. centimeters
   - B. liters
   - C. pounds
   - D. grams

4. Which pair of numbers best completes the equation?
   $\square \times 10,000 = \square$
   - F. 38 and 380
   - G. 38 and 3,800
   - H. 38 and 38,000
   - J. 38 and 380,000

5. The table below shows the colors of the shirts in Roberto’s closet.

<table>
<thead>
<tr>
<th>Color of Shirt</th>
<th>Number of Shirts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>4</td>
</tr>
<tr>
<td>Green</td>
<td>2</td>
</tr>
<tr>
<td>Red</td>
<td>3</td>
</tr>
<tr>
<td>White</td>
<td>3</td>
</tr>
</tbody>
</table>

If Roberto takes a shirt from his closet without looking, what is the probability that the shirt will be green?
   - A. 2 out of 4
   - B. 3 out of 12
   - C. 2 out of 12
   - D. 2 out of 3
6 The table below shows the number of cans collected by 3 classes during a canned food drive at school.

<table>
<thead>
<tr>
<th>Canned Food Drive</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class</strong></td>
<td><strong>Number of Cans</strong></td>
</tr>
<tr>
<td>A</td>
<td>120</td>
</tr>
<tr>
<td>B</td>
<td>310</td>
</tr>
<tr>
<td>C</td>
<td>150</td>
</tr>
</tbody>
</table>

How many more cans did Class B collect than Class A and Class C combined?

F 40  
G 60  
H 90  
J 270

7 Ming collects bottle caps. He has 6 boxes of bottle caps. Each box contains 35 caps. How many bottle caps does Ming have altogether? Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

8 Which point on the number line best represents $3 \frac{1}{2}$?

F W  
G X  
H Y  
J Z

9 Samantha and her family went to a baseball game. They bought 4 tickets for $20, 4 sodas for $5 and 4 hot dogs. What information is needed to find the total amount that Samantha’s family spent at the baseball game?

A The cost of a candy bar  
B The name of the home team  
C The cost of the hot dogs  
D The number of people at the game

10 There are 150 people attending a football game at Armadillo Stadium. The football stadium is divided into 6 equal sections. If there are an equal number of people in each section, how many people are in Section 1?

F 25  
G 30  
H 156  
J 900
11 What fraction is equivalent to the shaded area of the rectangle below?

A 1/4
B 1/3
C 1/2
D 1/5

12 There are 4 picnic tables in the park. Each table has seats for 6 people. What number sentence shows how to find the greatest number of people who can be seated at the picnic tables at one time?
F 6 ÷ 4 =
G 6 × 4 =
H 6 - 4 =
J 6 + 4 =

13 There are 12 inches in 1 foot. Which of the following is the best estimate of the number of inches in a 75-foot-long sidewalk?
A 75 in.
B 85 in.
C 750 in.
D 7,500 in.

14 In the candy store, there are jars of jellybeans on the shelf in front of the counter. The table below shows the number of jellybeans in 1 jar, 3 jars, and 5 jars.

<table>
<thead>
<tr>
<th>Jars of Jellybeans</th>
<th>Number of Jars</th>
<th>Number of Jellybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>?</td>
</tr>
</tbody>
</table>

Based on the pattern in the table, how can you find the number of jellybeans in 7 jars?
F Add 7 to 75
G Multiply 75 by 7
H Subtract 7 from 75
J Divide 75 by 7

15 Which of the following describes the rule of the pattern?
16, 21, 19, 24, 22, 27, 25
A Add 5, subtract 2
B Add 6, subtract 1
C Subtract 2, add 5
D Subtract 1, add 6
16 Look at the 2 sets of numbers below.

<table>
<thead>
<tr>
<th>Set P</th>
<th>Set Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,515</td>
<td>3,883</td>
</tr>
<tr>
<td>3,434</td>
<td>4,774</td>
</tr>
<tr>
<td>2,626</td>
<td>5,665</td>
</tr>
</tbody>
</table>

Which number belongs in Set P?

F 5,558  
G 5,588  
H 5,858  
J 5,885

17 It takes Shawn about 20 minutes to complete his math homework each night. At this rate, how many days will it take Shawn to complete 2 hours of math homework?

A 3 days  
B 6 days  
C 9 days  
D 12 days

18 What is the perimeter of the rectangle below?

5 cm  
2 cm

F 7 cm  
G 14 cm  
H 10 cm  
J 20 cm

19 Look at the 2 models below.

Which of the following inequalities compares the 2 models?

A $\frac{3}{10} < \frac{3}{8}$  
B $\frac{6}{10} < \frac{6}{8}$  
C $\frac{6}{10} > \frac{6}{8}$  
D $\frac{6}{20} < \frac{6}{16}$

20 How many lines of symmetry does the triangle below have?

F 0  
G 1  
H 2  
J 3
21 The table below shows the number of minutes in 1 hour, 2 hours, and 3 hours.

<table>
<thead>
<tr>
<th>Minutes in Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Hours</td>
</tr>
<tr>
<td>Number of Minutes</td>
</tr>
</tbody>
</table>

What is one way to find the number of minutes in 6 hours?
A Add 6 to 60
B Subtract 6 from 60
C Multiply 60 by 6
D Divide 60 by 6

22 When Kiandra woke up in the morning, the temperature was 48° F. When she went outside to play later that morning, the temperature had risen by 8° F. When it was time for her dance class in the late afternoon, the temperature had dropped 2° F. What was the temperature at the time of Kiandra’s dance class?
F 42° F
G 52° F
H 54° F
J 56° F

23 The table below shows the distances jumped by several boys in Juan’s class.

<table>
<thead>
<tr>
<th>Distance Jumped</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
</tr>
<tr>
<td>Carlos</td>
</tr>
<tr>
<td>Austin</td>
</tr>
<tr>
<td>Stephen</td>
</tr>
<tr>
<td>Devon</td>
</tr>
</tbody>
</table>

Juan jumped 4 feet 3 inches. How much farther did Stephen jump than Juan?
A 1 inch
B 4 inches
C 7 inches
D 10 inches

24 Maria reads 18 pages of her book during reading class. Shelly reads 7 more pages of her book than Maria. Which of these statements show the total number of pages Shelly reads?
F The product of 18 and 7
G The quotient of 18 and 7
H The sum of 18 and 7
J The difference between 18 and 7
25 Which figure below has one set of parallel lines?

A

B

C

D

26 Look at the stars below.

Which of the following statements best describes the relationship between the white stars and the total number of stars?

F 2 out of 3

G 1 out of 2

H 3 out of 5

J 2 out of 5

27 Savion has 3 dogs. He took each dog for a walk 5 times last week. How many times did Savion walk his dogs last week?

A 8

B 15

C 16

D 45

28 Each number in Set A is paired with a number in Set B. The relationship is the same for each pair of numbers.

<table>
<thead>
<tr>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>60</td>
</tr>
</tbody>
</table>

If the number in Set A is 12, how will you find its paired number in Set B?

F Add 5 to 12

G Multiply 12 by 6

H Add 5 to 60

J Multiply 12 by 5
29 Which decimal does the model below represent?

A 0.23  
B 2.3  
C 23.0  
D 230.0

30 Kate runs the same route around her neighborhood every day for 8 days. What information is needed to find the total distance Kate runs during that time?

F The amount of time Kate ran  
G The kind of shoes Kate wore  
H The distance of the route Kate ran  
J The time of day Kate ran

31 The playground balls below were in a basket. Charlie reaches in to take one out without looking. What is the probability that he will pick a ball with stripes?

A 2 out of 4  
B 1 out of 3  
C 1 out of 4  
D 2 out of 6

32 Which pair of numbers best completes this equation?

F 56 and 156  
G 56 and 5,600  
H 56 and 1,156  
J 56 and 560
33 The table below shows the total number of visitors to a local state park in the years 2002 through 2005.

<table>
<thead>
<tr>
<th>State Park Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td>2003</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>2005</td>
</tr>
</tbody>
</table>

In which year did the largest number of people visit the local state park?
A 2002
B 2003
C 2004
D 2005

34 In Desiree’s class, there are 5 girls wearing jackets and 7 girls wearing vests. If Desiree picks 1 girl from her class to play with, what is the probability the girl will be wearing a jacket?
F 5 out of 12
G 7 out of 12
H 1 out of 12
J 5 out of 7

35 Which pair of figures shows a rotation?
A
B
C
D
36 Mr. Diego needs to divide his class into 4 equal teams. How can he divide the students into teams?
- F Subtract 4 from the total number of students
- G Multiply the total number of students by 4
- H Divide the total number of students by 4
- J Add 4 to the total number of students

37 If 10 gallons of milk are sold each day at the store, how many quarts of milk are sold each day?
- A 10
- B 20
- C 30
- D 40

38 Each number in Set U is related in the same way to the number below it in Set V.

<table>
<thead>
<tr>
<th>Set U</th>
<th>4</th>
<th>8</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set V</td>
<td>7</td>
<td>11</td>
<td>15</td>
</tr>
</tbody>
</table>

If the number in Set U is 18, how do you find its related number in Set V?
- F Add 18 and 3
- G Multiply 18 by 3
- H Add 18 and 4
- J Multiply 3 by 4

39 Fatima eats the same number of cookies every day for a snack. If she eats 36 cookies total in 12 days, which number sentence can be used to find the number of cookies Fatima eats each day?
- A $12 + 36 = \_
- B $36 - 12 = \_
- C $36 \times 12 = \_
- D $36 ÷ 12 = \_

40 The baker buys flour in 18 pound packages. If the baker buys 10 bags of flour, how many pounds of flour does he purchase?
- F 108 pounds
- G 180 pounds
- H 1,080 pounds
- J 1,800 pounds

41 When Alex went to the arcade, he played 2 games in 14 minutes. At the same rate, how many minutes would it take him to play 5 games?
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.
42 The table below shows the number of cubes and the number of faces on those cubes.

<table>
<thead>
<tr>
<th>Faces on Cubes</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cubes</td>
<td>Number of Faces</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

How would you determine the number of faces on 8 cubes?

F Add 6 to 8
G Multiply 8 by 6
H Add 8 to 36
J Multiply 8 by 4
# Countdown to TAKS

## 10 Weeks to TAKS

### Monday

**1** The population of Texas in the year 2000 was 20,851,820. The population of Texas in the year 2005 was estimated to be 22,859,968. By how many people did the population of Texas grow between 2000 and 2005?

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,000,000</td>
<td>2,000,848</td>
<td>2,008,148</td>
<td>2,080,148</td>
</tr>
</tbody>
</table>

**Tuesday**

**2** The population of San Antonio is listed in the chart below. During which year did the least number of people live in San Antonio?

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1,324,750</td>
</tr>
<tr>
<td>1995</td>
<td>1,398,720</td>
</tr>
<tr>
<td>2000</td>
<td>1,592,380</td>
</tr>
<tr>
<td>2005</td>
<td>1,256,510</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1995</td>
<td></td>
</tr>
</tbody>
</table>

**Wednesday**

**3** There were 10,985 people at the Texas Rangers exhibition game on Saturday. On Sunday, 14,215 people attended the game. Which of the following is the best estimate of the total number of people that attended the games?

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5,000</td>
<td>20,000</td>
<td>25,000</td>
<td>30,000</td>
</tr>
</tbody>
</table>

**Thursday**

**4** A rodeo is in town for three days. On Friday, 2,321 tickets are sold. On Saturday, 5,678 tickets are sold. On Sunday, 6,531 tickets are sold. How many tickets are sold in all?

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,530</td>
<td>13,340</td>
<td>13,420</td>
<td>14,530</td>
<td></td>
</tr>
</tbody>
</table>

**Friday**

**5** Ken and his family are deciding on a vacation spot. Breezy Lake is 1,105 miles from Ken’s home and Deer Mountain is 867 miles from his home. How many more miles away is Breezy Lake than Deer Mountain from Ken’s home?

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>238</td>
<td>242</td>
<td>248</td>
<td>342</td>
<td></td>
</tr>
</tbody>
</table>
Countdown to TAKS
9 Weeks to TAKS

Monday

1. The Meadowbrook Times graphed their sales for the first six months of the year. According to the graph at the right, how many more newspapers were sold in March than April?

A. 50  B. 150  C. 250  D. 450

Tuesday

2. During which month were 125 memberships sold?

F. May  G. June  H. July  J. August

Wednesday

3. What year did former Dallas Cowboys quarterback, Roger Staubach pass for 3,200 yards?


Thursday

4. Using the tree diagram below, how many combinations are available for breakfast?

F. 2  G. 3  H. 6  J. 8

Friday

5. If Jim chooses a marble from the box without looking, what is the probability that Jim will choose a white marble?

A. 4 out of 6  B. 2 out of 6  C. 2 out of 4  D. 6 out of 6
# Countdown to TAKS

## 8 Weeks to TAKS

### Monday

1. Bobby wants to order a 1-topping pizza for dinner. A pizza shop offers thick and thin crusts. The toppings the shop offers are cheese, pepperoni, sausage, and mushrooms. How many combinations of 1-topping pizzas does Bobby have to choose from?
   - A 2
   - B 4
   - C 8
   - D 14

### Tuesday

2. Which of the following number sentences is in the same fact family as \(48 \div 8 = 6\)?
   - F \(8 - 6 = 2\)
   - G \(8 + 6 = 14\)
   - H \(8 \times 6 = 48\)
   - J \(48 + 8 = 52\)

### Wednesday

3. An array for the number 20 is shown below. Which of the following expressions describes the array?

   - \(2 \times 12\)
   - \(4 \times 5\)
   - \(2 \times 10\)
   - Not here

### Thursday

4. Josiah scores 12 points during a football game. Cristobal scores 3 times as many points. Which of the following number sentences shows the total number of points Cristobal scored?
   - F \(12 \div 3 = 4\)
   - G \(12 - 3 = 9\)
   - H \(12 + 3 = 15\)
   - J \(12 \times 3 = 36\)

### Friday

5. Which of the following lists shows the first five multiples of 7?
   - A 0, 7, 10, 14, 19
   - B 1, 8, 15, 22, 29
   - C 7, 14, 21, 28, 35
   - D 7, 17, 27, 37, 47
Countdown to TAKS
7 Weeks to TAKS

Monday

1 Ryan’s family travels across the state to attend soccer tournaments. Which expression shows the difference between the number of miles traveled by Ryan’s family on Friday and the number of miles traveled on Saturday?

A 295 – 180
B 295 + 180
C 180 + 65
D 295 – 65

Distances Traveled to Soccer Tournaments

<table>
<thead>
<tr>
<th>Day</th>
<th>Number of Miles Traveled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>180 miles</td>
</tr>
<tr>
<td>Saturday</td>
<td>295 miles</td>
</tr>
<tr>
<td>Sunday</td>
<td>65 miles</td>
</tr>
</tbody>
</table>

Tuesday

2 Using the pattern in the table below, how many cookies are needed for 50 people?

<table>
<thead>
<tr>
<th>Number of People</th>
<th>Number of Cookies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>50</td>
<td>?</td>
</tr>
</tbody>
</table>

F 120
G 150
H 180
J 300

Wednesday

3 Look for a pattern in the table.

<table>
<thead>
<tr>
<th>x</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>36</td>
<td>54</td>
<td>72</td>
<td>?</td>
</tr>
</tbody>
</table>

If the number in Set X is 11, what is the related number in Set Y?

A 66
B 77
C 88
D 99

Thursday

4 What is the rule for the table of values shown below?

A [70, 49, 35]
B [63, 42, 28]

F Divide Set A by 7
G Multiply Set A by 7
H Add 7 to Set A
J Subtract 7 from Set A

Friday

5 Which equation describes the picture shown below?

A 80 + 40 = 120
B 120 ÷ 3 = 40
C 120 – 40 = 80
D Not here
# Countdown to TAKS
## 6 Weeks to TAKS

**Monday**

1. Anna buys 3 bracelets. The cost of each bracelet is $68.95. What is the best estimate for the total cost of the bracelets when rounded to the nearest whole dollar? Record your answer and fill in the bubbles on the grid. Be sure to use correct place value.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tuesday**

2. Each row of bleachers can seat 28 people. How many people can be seated on 8 rows?
- F 36
- G 176
- H 224
- J 264

**Wednesday**

3. A bakery sells 96 cupcakes each day and is open 7 days a week. How many cupcakes will they sell in 2 weeks?
- A 1,344
- B 1,440
- C 1,444
- D 2,344

**Thursday**

4. There are 50 students and 8 adults going on a field trip to the zoo. If they travel in vans that have 12 seats each, how many vans are needed?
- F 4
- G 5
- H 6
- J 7

**Friday**

5. Kenton owns 224 baseball cards. He gives each of his 7 friends an equal number of cards. What is the best estimate of how many cards each friend receives?
- A 20
- B 30
- C 40
- D 50
### Monday

1. There are 6 teams signed up to compete in relay races during field day. The same number of students are on each team. If 30 students are signed up, how many students are on each team? Record your answer and fill in the bubbles on the grid. Be sure to use correct place value.

### Tuesday

2. Jeff spends $96 on 8 movie tickets. How much does each ticket cost?
   - F $10
   - G $11
   - H $12
   - J $13

### Wednesday

3. There are 18 students in the art club. There are twice as many students in the choir than the art club. How many students are in the choir?
   - A 9
   - B 20
   - C 36
   - D 42

### Thursday

4. There are 162 members in the marching band at San Pedro High School. When marching, there are 9 members in each row. How many rows does the band form when they march?
   - F 10
   - G 13
   - H 17
   - J 18

### Friday

5. A track team will run 5 miles a week for 8 weeks. At the end of 8 weeks, how many miles will the track team have run?
   - A 35
   - B 40
   - C 45
   - D 50
### Countdown to TAKS

**4 Weeks to TAKS**

#### Monday

1. What geometric figure is represented by the net shown at the right?  
   - A triangular prism  
   - B triangular pyramid  
   - C rectangular prism  
   - D cube

#### Tuesday

2. What solid geometric figure has 4 faces, 4 vertices, and 6 edges?  
   - F triangular prism  
   - G triangular pyramid  
   - H rectangular prism  
   - J rectangular pyramid

#### Wednesday

3. What type of shapes are shown below?  
   - A parallelograms  
   - B pentagons  
   - C quadrilaterals  
   - D trapezoids

#### Thursday

4. What types of angles are shown in the polygon below?  
   - F right angles  
   - G right and acute angles  
   - H acute and obtuse angles  
   - J obtuse and right angles

#### Friday

5. Which of the following best describes the triangle below?  
   - A obtuse  
   - B right  
   - C equilateral  
   - D Not here

---

**Countdown to TAKS, Grade 4**

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**4027 Mastering TEKS/TAKS G4**

Feb. 18, 2009

Reviewed by Pronk
Reviewed by MHR
Final approval. No changes
### Countdown to TAKS
3 Weeks to TAKS

#### Monday

1. Which of the following figures shows a transformation?
   - A
   - B
   - C
   - D

#### Tuesday

2. What type of lines can be used to describe both of the figures shown below?
   - F parallel lines
   - G perpendicular lines
   - H intersecting lines
   - J curved lines

3. What transformation is shown below?
   - A translation
   - B transformation
   - C reflection
   - D rotation

#### Wednesday

4. What value is represented by point D on the number line below?
   - A 1,000
   - B 200
   - C 350
   - D 750
   - E 900

5. Which of the following letters does **NOT** have at least 2 lines of symmetry?
   - A H
   - B T
   - C O
   - D I
Countdown to TAKS
2 Weeks to TAKS

**Monday**

1. Measure the rectangle below. Which of the following is the best measurement of the perimeter of the rectangle?

   - A. $4\frac{1}{2}$ inches
   - B. $5\frac{1}{2}$ inches
   - C. $5\frac{3}{4}$ inches
   - D. 6 inches

**Tuesday**

2. Jenny needs $2\frac{1}{2}$ yards of fabric for a costume. How many inches of fabric does Jenny need?

   - F. 36 inches
   - G. 72 inches
   - H. 90 inches
   - J. 106 inches

**Wednesday**

3. Which of the following is the greatest amount of liquid?

   - A. 2 pints
   - B. 16 cups
   - C. $\frac{1}{2}$ gallon
   - D. 6 quarts

**Thursday**

4. What is the volume of the cube shown below?

   - F. 6 cubic units
   - G. 9 cubic units
   - H. 18 cubic units
   - J. 21 cubic units

**Friday**

5. Which fraction is equivalent to $1\frac{6}{10}$?

   - A. $\frac{2}{5}$
   - B. $\frac{3}{5}$
   - C. $\frac{4}{5}$
   - D. $\frac{3}{6}$
### Monday

1. Mrs. Hunter wants to put new carpet in her bedroom. The diagram at the right represents Mrs. Hunter’s bedroom such that 1 centimeter in the diagram is equivalent to 2 feet in her bedroom. Measure the diagram in centimeters. What is the area of Mrs. Hunter’s bedroom?
   
   - A 20 square feet
   - B 20 square centimeters
   - C 80 square feet
   - D 80 square centimeters

### Tuesday

2. What value is represented by the decimal model shown below?

   - F \( \frac{62}{100} \)
   - G \( \frac{7}{10} \)
   - H \( \frac{73}{100} \)
   - J \( \frac{3}{10} \)

### Wednesday

3. Which point on the number line represents a value greater than 2.9?

   - A \( M \)
   - B \( N \)
   - C \( Q \)
   - D Not here

### Thursday

4. Mike buys lunch at his favorite restaurant. He buys a drink for $1.09, a corned beef sandwich for $8.95 and cheesecake for $3.50. How much does Mike spend on his lunch?

   - F $13.44
   - G $13.54
   - H $14.44
   - J $14.54

### Friday

5. Tyrone and Don are cross county runners. Tyrone’s longest run is 4.75 miles. Don’s longest run is 5.3 miles. How many more miles is Don’s longest run than Tyrone’s longest run?

   - A 0.35 miles
   - B 0.40 miles
   - C 0.55 miles
   - D 0.60 miles
Benchmark Test 1

Record your answers by coloring in the appropriate bubble for the best answer to each question.

1. A B C D
2. F G H J
3. A B C D
4. F G H J
5. A B C D
6. F G H J
7. A B C D
8. F G H J
9. A B C D
10. F G H J
11. A B C D
12. F G H J
13. A B C D
14. F G H J
15. A B C D
16. F G H J
17. A B C D
18. F G H J
19. A B C D
20. F G H J
21. A B C D
22. F G H J
23. A B C D
24. F G H J
25. A B C D
26. F G H J
27. A B C D
28. F G H J
29. A B C D
30. F G H J
31. A B C D
32. F G H J
33. A B C D
34. F G H J
35. A B C D
36. F G H J
37. A B C D
38. F G H J
39. A B C D
40. F G H J
41. A B C D
42. F G H J
43. A B C D
44. F G H J
45. A B C D
46. F G H J
47. A B C D
48. F G H J
49. F G H J
50. F G H J

Mastering the TAKS, Grade 4  77
1. Kevin saved a total of $270 during the past 6 months. He saved the same amount of money each month. How much did he save each month?
   A $40  
   B $45  
   C $264  
   D $276

2. Tanisha spins the arrow twice on a spinner like the one shown below.

```
  apples  grapes
  bananas oranges
```

Which of these is a possible outcome?
   F Oranges and plums  
   G Strawberries and peaches  
   H Oranges and grapes  
   J Apples and pears

3. In the figure below, what type of angle is \( \angle C \)?

   A Acute  
   B Obtuse  
   C Right  
   D Isosceles

4. In which number sentence does 8 make the equation true?
   F \( 76 \div 9 = \)  
   G \( \square \times 5 = 45 \)  
   H \( 6 \times \square = 48 \)  
   J \( \square \div 4 = 4 \)

5. Sarah reads every day of the week. If she reads 20 pages each day, how many pages will she read in 2 weeks?
   A 28  
   B 40  
   C 140  
   D 280
6 Students need to estimate the area of a wall before they paint a mural. The wall measures 18 feet high and 29 feet wide. About how many square feet is the area of the wall?
   F About 50 square feet
   G About 100 square feet
   H About 600 square feet
   J About 1000 square feet

7 Indira returned home 3 hours and 30 minutes after she left to go to the library. She returned home at 6:00 P.M. What time did she leave for the library?
   A 2:00 P.M.
   B 2:30 P.M.
   C 3:00 P.M.
   D 3:30 P.M.

8 There are 200 students and 10 teachers preparing for a bus trip to Big Bend National Park. If each bus seats 42 people, what can the principal do to make sure that enough buses are reserved?
   F Multiply the number of students by the number of teachers.
   G Divide the number of people by 42.
   H Subtract 42 from the number of people going.
   J Divide the number of students by the number of teachers.

9 Michael is designing a collection of 8 storage boxes. Each box is decorated with 40 metal studs. Which number sentence shows how to find the total number of metal studs Michael will use to decorate the collection?
   A $40 \div 8 = $  
   B $40 + 8 = $  
   C $40 - 8 = $  
   D $40 \times 8 = $

10 What number on the number line does point D best represent?

11 Which of the following shapes has 6 faces, 12 edges and 8 vertices?
   A Cylinder
   B Square pyramid
   C Sphere
   D Cube

---

80 Mastering the TAKS, Grade 4
12 Gloria makes beaded bracelets. The table below shows how many beads there are in different numbers of bracelets.

<table>
<thead>
<tr>
<th>Number of Bracelets</th>
<th>Number of Beads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>50</td>
</tr>
</tbody>
</table>

If Gloria makes 9 bracelets, how many beads will she have used?
F 80  
G 90  
H 100  
J 109

13 The racing times for the 4 legs of a relay race were 10.25 seconds, 10.05 seconds, 10.50 seconds and 9.58 seconds. How long did it take to run the slowest leg of the race?
A 9.58 seconds  
B 10.05 seconds  
C 10.25 seconds  
D 10.50 seconds

14 Enrique has filled his 50-page trading card book. What information is needed to find out how many trading cards Enrique has in the book?
F How many trading cards each page holds  
G The size of the book  
H How much money Enrique spent on the cards  
J The size of the trading cards

15 The graph below shows the breeds of dogs entered in a dog show.

According to the graph, how many more Poodles than Hounds were entered in the dog show?
A 2  
B 4  
C 6  
D 8

Go on
16 Emma arranges some tiles in the pattern shown below. 

Which number sentence best represents Emma’s pattern?
F $3 + 2 = 5$
G $3 + 6 = 9$
H $2 \times 3 = 6$
J $6 \times 2 = 12$

17 Toshiro uses arrows to demonstrate rotation. Which pair of arrows shows Toshiro’s demonstration?

18 Trevor can run about 9 miles in 1 hour. If he runs at the same speed, about how many miles can he run in 7 hours?
F 16 miles
G 35 miles
H 50 miles
J 60 miles

19 Each number in Set A is related in the same way to the number beside it in Set B.

<table>
<thead>
<tr>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td>55</td>
<td>11</td>
</tr>
<tr>
<td>80</td>
<td>16</td>
</tr>
</tbody>
</table>

When given a number in Set A, what is one way to find its related number in Set B?
A Divide by 4
B Divide by 5
C Subtract 10
D Subtract 15

82 Mastering the TAKS, Grade 4
20 Todd’s bucket holds 1 gallon of water. He fills it using a quart container. How many quart containers does it take to fill the bucket?
F 2
G 4
H 6
J 8

21 Mrs. Bishop’s class visited the Texas State Aquarium in Corpus Christi. Students voted for the animals they liked the best and recorded the information in the table below.

<table>
<thead>
<tr>
<th>Favorite Aquarium Animals</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Turtle</td>
<td>2</td>
</tr>
<tr>
<td>Dolphin</td>
<td>8</td>
</tr>
<tr>
<td>Shark</td>
<td>6</td>
</tr>
<tr>
<td>Alligator</td>
<td>4</td>
</tr>
</tbody>
</table>

Which statement about the information is NOT true?
A Twice as many students voted for dolphins than alligators.
B The same number of students voted for sea turtles and sharks as dolphins.
C The same number of students voted for alligators as sharks.
D Half as many students voted for sea turtles as alligators.

22 The shape below is shaded to represent a fraction.

Which model below shows an equivalent fraction?
F
G
H
J
23 The graph below shows the favorite sports of students in Chen’s class.

<table>
<thead>
<tr>
<th>Sport</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>2</td>
</tr>
<tr>
<td>Swimming</td>
<td>4</td>
</tr>
<tr>
<td>Baseball</td>
<td>6</td>
</tr>
<tr>
<td>Basketball</td>
<td>8</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>6</td>
</tr>
</tbody>
</table>

Each student who voted received 2 stickers. How many stickers were given out?

A 10  
B 20  
C 34  
D 48

24 Jenna builds a wooden container to hold her writing supplies.

Estimate the volume of Jenna’s container.

F About 600 in$^3$  
G About 800 in$^3$  
H About 1,000 in$^3$  
J About 1,200 in$^3$

25 What place is the 4 in the number 347,935,081?

A Millions  
B Ten millions  
C Hundred millions  
D Not here

26 The pizzas below were left when Anhil’s birthday ended.

Which of the following compares the portion of pizza slices left in each pie?

F $\frac{2}{6} < \frac{4}{6}$  
G $\frac{2}{6} > \frac{4}{12}$  
H $\frac{2}{6} = \frac{4}{12}$  
J $\frac{2}{12} < \frac{4}{12}$
Robert places the shapes below in a box.

If Robert picks one shape without looking, what is the probability that he will pick the circle?

A 1 out of 5  
B 4 out of 5  
C 3 out of 5  
D 1 out of 3

The table below shows the numbers that were put into a machine and the different numbers that came out of the machine.

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>13</td>
<td>26</td>
</tr>
</tbody>
</table>

Based on the information in the table, what happened to each number that was put into the machine?

F It was divided by 2.  
G It was multiplied by 2.  
H It had 7 added to it.  
J It was multiplied by 3.

Raoul runs 3 laps around the track each day for a week. What information is needed to find the total distance Raoul runs during the week?

A The length of the track  
B How fast Raoul runs  
C How many lanes are in the track  
D The time of day Raoul runs

Soon Yi trains for the White Rock Marathon by running every day. If she runs for 5 miles each day, how many miles will she run in 12 days?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.
31 Jordan has a piano recital at the Abraham Chavez Theatre in El Paso. She plans to play 5 sets. The table below shows the amount of time needed for each set.

<table>
<thead>
<tr>
<th>Music</th>
<th>Length of Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set 1</td>
<td>12 minutes</td>
</tr>
<tr>
<td>Set 2</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Set 3</td>
<td>22 minutes</td>
</tr>
<tr>
<td>Set 4</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Set 5</td>
<td>8 minutes</td>
</tr>
</tbody>
</table>

Jordan is scheduled to play for only one hour. Which strategy can she use to find whether she has enough time to play all 5 sets?

A) Draw a picture of a clock.
B) Add the number of sets together to see if it is more or less than the total number of minutes.
C) Add all the playing times together and divide by 5.
D) Add all the playing times together to decide whether the sum in minutes is more or less than one hour.

32 Use the ruler on the Mathematics Chart to measure the four sides of the kite to the nearest centimeter.

What is the perimeter of the kite?

F) 8 cm  
G) 12 cm  
H) 16 cm  
J) 20 cm

33 In which set of number sentences does 6 make both equations true?

A) \(8 \times \Box = 48\)  
40 ÷ 8 = 
B) \(\Box \times 7 = 42\)  
42 ÷ 7 = 
C) \(54 ÷ \Box = 9\)  
\(\Box \times 9 = 81\)
D) \(7 + \Box = 14\)  
14 − 7 = 

Go on
34 Look at the lines below.

Which lines appear to be perpendicular to each other?
- F \( \overline{AB} \) and \( \overline{EF} \)
- G \( \overline{AB} \) and \( \overline{GH} \)
- H \( \overline{AB} \) and \( \overline{CD} \)
- J \( \overline{GH} \) and \( \overline{EF} \)

35 At 7:00 A.M. the temperature was 45°F. It rose 20°F by 11:00 A.M. What was the temperature at 11:00 A.M.?
- A 20°F
- B 45°F
- C 55°F
- D 65°F

36 Sixty students from Leroy’s school participated in the Special Olympics. There were 10 students on each team. Which number sentence is in the same fact family as

\[ \frac{60}{10} = \square \]

- F \( 60 \times 10 = \square \)
- G \( \square \times 60 = 10 \)
- H \( 6 \times \square = 60 \)
- J \( \square \times 6 = 10 \)

37 The model is shaded to represent 4.17.

Which fraction does the model represent?
- A \( \frac{4}{17} \)
- B \( \frac{4}{17} \)
- C \( \frac{17}{17} \)
- D \( \frac{17}{100} \)
38 The table below shows the number of cupcakes sold by students over 3 days.

<table>
<thead>
<tr>
<th>Day</th>
<th>Chocolate Cupcakes</th>
<th>Vanilla Cupcakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>Tuesday</td>
<td>76</td>
<td>80</td>
</tr>
<tr>
<td>Wednesday</td>
<td>125</td>
<td>95</td>
</tr>
</tbody>
</table>

How many more chocolate cupcakes than vanilla cupcakes were sold over the 3 days?

F 30  
G 41  
H 210  
J 251

39 Which pair of figures shows a reflection?

A

B

C

D

40 Genevieve is arranging flowers for a party. She uses 12 flowers in each arrangement. If she makes 5 arrangements, how many flowers does she use?

F 24  
G 50  
H 60  
J 72

41 Lourdes uses cubes to build the object below.

What is the volume of Lourdes’ object?

A 11 cubic units  
B 12 cubic units  
C 20 cubic units  
D 36 cubic units
The table below shows the number of stickers that a group of friends have in their collection.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Stickers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam</td>
<td>70</td>
</tr>
<tr>
<td>Lisette</td>
<td>42</td>
</tr>
<tr>
<td>Padama</td>
<td>20</td>
</tr>
<tr>
<td>Hiro</td>
<td>15</td>
</tr>
<tr>
<td>Paul</td>
<td>?</td>
</tr>
</tbody>
</table>

They collected 160 stickers in all. Based on the table, Paul collected 13 stickers. How can that conclusion be justified?

F You can assume that Paul’s collection contains fewer stickers than Hiro’s.
G You can subtract the number of stickers that Hiro has collected from 160.
H You can add the number of stickers from the table and then subtract the sum from 160.
J You can add all of the stickers that the group of friends collected and divide by 160.

43 There are 9 tables in the school cafeteria. Each table has 12 seats. Which number sentence shows how to find the total number of people the cafeteria can seat?

A $9 \times 12 = 108$
B $9 + 12 = 21$
C $12 \times 12 = 144$
D $9 \times 9 = 81$

Logan biked 1.55 km in the morning and 2.13 km in the afternoon. Use the models to determine how far Logan biked altogether.

F 0.58 km
G 2.55 km
H 3.13 km
J 3.68 km

Jeanine reads the class thermometer and records the temperature.

What is the temperature Jeanine records?

A 71°F
B 72°F
C 73°F
D 74°F

Brian draws a figure that has 0 flat surfaces, 0 edges, and 0 vertices. What figure does Brian draw?

F Cylinder
G Rectangular prism
H Sphere
J Cone
47 Ellen buys flowers that cost $10.00. She also buys a teddy bear. Ellen gives the cashier $20.00. She receives $5.50 in change. What is the best strategy that can be used to find the price of the bear?  
A Draw a picture of the items Ellen bought.  
B Add the price of the flowers and the amount of change Ellen received and then subtract the total from $20.00.  
C Make a table.  
D Guess the answer.

48 Look at the model below.

![Model of fractions]

Which fraction is shown by the model?  
F \( \frac{4}{12} \)  
G \( \frac{3}{4} \)  
H \( \frac{15}{4} \)  
J \( \frac{15}{15} \)

49 Omar made 12 key chains. Leslie made one third as many key chains as Omar. How many key chains did Leslie make?  
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

50 The table below shows the distances swam by the members of the swim team.

<table>
<thead>
<tr>
<th>Name</th>
<th>Distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farik</td>
<td>2,012</td>
</tr>
<tr>
<td>Sarah</td>
<td>497</td>
</tr>
<tr>
<td>Glen</td>
<td>1,120</td>
</tr>
<tr>
<td>Nadia</td>
<td>995</td>
</tr>
</tbody>
</table>

Which is the best estimate of how many more meters Farik swam than Nadia?  
F 500 meters  
G 1,000 meters  
H 1,500 meters  
J 2,000 meters
Benchmark Test 2
Student Answer Sheet

Record your answers by coloring in the appropriate bubble for the best answer to each question.

1 A B C D
2 A B C D
3 A B C D
4 A B C D
5 A B C D
6 A B C D
7 A B C D
8 A B C D
9 A B C D
10 A B C D
11 A B C D
12 A B C D
13 A B C D
14 A B C D
15 A B C D
16 A B C D
17 A B C D
18 A B C D
19 A B C D
20 A B C D
21 A B C D
22 A B C D
23 A B C D
24 A B C D
25 A B C D
26 A B C D
27 A B C D
28 A B C D
29 A B C D
30 A B C D
31 A B C D
32 A B C D
33 A B C D
34 A B C D
35 A B C D
36 A B C D
37 A B C D
38 A B C D
39 A B C D
40 A B C D
41 A B C D
42 A B C D
43 A B C D
44 A B C D
45 A B C D
46 A B C D
47 A B C D
48 A B C D
49 A B C D
50 A B C D
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

1. There were 200 tickets printed for the fourth-grade talent show. The tickets are arranged in 8 books containing an equal number of tickets. How many tickets were in each book?
   A. 25
   B. 50
   C. 75
   D. 100

2. Elise rides her bike every day. The table below shows the total number of miles she has ridden after different numbers of days.

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Total Number of Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>12</td>
<td>120</td>
</tr>
</tbody>
</table>

If the pattern continues, how many miles will Elise have ridden after 25 days?
F. 25
G. 150
H. 250
J. 2,500

3. Which of the following shapes has more than five sides?
   A. Triangle
   B. Pentagon
   C. Parallelogram
   D. Hexagon

4. Which lines are parallel?
   - F. \( \overrightarrow{EF} \) and \( \overrightarrow{GH} \)
   - G. \( AB \) and \( \overrightarrow{EF} \)
   - H. \( AB \) and \( \overrightarrow{CD} \)
   - J. \( CD \) and \( \overrightarrow{EF} \)

5. Ben puts the marbles below in a bag. If Ben picks 1 marble from the bag without looking, what is the probability that the marble will be gray?
   A. 2 out of 4
   B. 1 out of 2
   C. 2 out of 6
   D. 4 out of 6
6 The thermometer below shows the low temperature for one day in December.

<table>
<thead>
<tr>
<th>°Fahrenheit</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>30</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

The high temperature for that day was 11°F higher. What was the high temperature?

F 19°F
G 47°F
H 55°F
J 60°F

7 Alejandro picks 8 flowers in 1 minute. At this rate, about how many flowers will he pick in 15 minutes?

A About 30
B About 40
C About 80
D About 150

8 Which of the following describes the rule for this pattern?

10, 15, 12, 17, 14, 19, 16

F Subtract 5, add 3
G Subtract 3, add 5
H Add 3, subtract 5
J Add 5, subtract 3

9 In the figure below, which two angles appear to be acute?

\[ \begin{array}{c}
1 \\
2 \\
3 \\
4 \\
\end{array} \]

A Angles 1 and 2
B Angles 2 and 4
C Angles 1 and 3
D Angles 3 and 4

10 Which of the following is the number 920,015,300?

F Nine hundred twenty thousand, three hundred, fifteen
G Nine million, twenty thousand, fifteen
H Nine hundred twenty million, fifteen thousand, three hundred
J Nine hundred twenty million, three hundred fifteen thousand

11 Which fraction is NOT equivalent to the shaded area of the rectangle?

\[ \frac{1}{3} \]

A \( \frac{1}{3} \)
B \( \frac{2}{6} \)
C \( \frac{1}{4} \)
D \( \frac{4}{12} \)
12 Miriam has 8 crates of apples. There are 12 apples in each crate. Which number sentence can be used to find the total number of apples in Miriam’s crates?

F $8 \times 12 = \square$

G $12 \div 8 = \square$

H $12 + 8 = \square$

J $12 - 8 = \square$

13 Which of these units would best measure the mass of a bag of flour?

A pounds

B inches

C ounces

D pints

14 For a class project Abiola is recording the days during the month of May in which the temperature rose above 95°F. Which would be the best way for Abiola to organize this information?

F Make a graph showing the days of the month and the temperature for each day.

G Make a table to list the names of the cities and their average temperature for May.

H Write a number sentence showing the total number of days in May.

J Write how many weeks are in the month of May.

15 The table below shows the prices of different numbers of cupcakes in a box.

<table>
<thead>
<tr>
<th>Number of cupcakes (in a box)</th>
<th>6</th>
<th>12</th>
<th>18</th>
<th>24</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price of cupcakes</td>
<td>$3</td>
<td>$6</td>
<td>$9</td>
<td>$12</td>
<td>$18</td>
</tr>
</tbody>
</table>

Based on the information in the table, how would you find the price of 1 cupcake?

A Subtract the number of cupcakes from the price of cupcakes

B Divide the price of the cupcakes by the number of cupcakes

C Add the number of cupcakes to the price

D Add 2 to the number of cupcakes

16 How many faces does this rectangular prism have?

F 4

G 6

H 8

J 12
17 Joyce begins her art project at 8:00 A.M. She paints for 4 and one half hours. What time does Joyce finish her art project?
A 3:30 A.M.
B 10:30 A.M.
C 12:00 P.M.
D 12:30 P.M.

18 The graph below shows the different types of books that students borrowed from the library.

<table>
<thead>
<tr>
<th>Library Books Borrowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Book</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Science</td>
</tr>
<tr>
<td>Mystery</td>
</tr>
<tr>
<td>Biography</td>
</tr>
<tr>
<td>Poetry</td>
</tr>
<tr>
<td>Adventure</td>
</tr>
<tr>
<td>Number of Students</td>
</tr>
<tr>
<td>0246810</td>
</tr>
</tbody>
</table>

According to the graph, how many fewer students borrowed science books than biography books?
F 6
G 8
H 10
J 12

19 How many lines of symmetry does this shape have?
A 2
B 4
C 6
D 8

20 Carmen wraps 9 presents. She uses 3 ribbons for each present. How many ribbons does Carmen use to wrap all 9 presents?
F 3
G 6
H 18
J 27

21 The model is shaded to represent \( \frac{20}{100} \). What decimal does the model represent?
A 0.52
B 0.70
C 5.10
D 5.20
22 Which point on the number line best represents $2 \frac{1}{2}$?

- F B
- G D
- H A
- J C

23 Chen buys 5 pencils for 25¢. What is the total cost of 9 pencils?

- A 30¢
- B 35¢
- C 45¢
- D 55¢

24 In which number sentence does the number 8 make the equation true?

- F $\boxed{8} \div 6 = 4$
- G $150 \div 10 = \boxed{15}$
- H $81 \div \boxed{9} = 9$
- J $96 \div \boxed{12} = 12$

25 Earl bought the tool box below.

Estimate the volume of Earl’s tool box in cubic inches.

- A About 100 in$^3$
- B About 400 in$^3$
- C About 600 in$^3$
- D About 2,500 in$^3$

26 Maria donates 5 cans of food to the food drive. Leroy donates 4 times as many cans of food as Maria. Which of the following shows the number of cans that Leroy donates?

- F The sum of 5 and 4
- G The quotient of 5 and 4
- H The product of 5 and 4
- J The difference between 5 and 4

27 The models are shaded to represent fractions.

Which of the following compares the models?

- A $\frac{3}{5} = \frac{5}{15}$
- B $\frac{3}{5} < \frac{5}{15}$
- C $\frac{3}{5} > \frac{5}{15}$
- D $\frac{5}{15} < \frac{1}{5}$
Benchmark Test 2 (continued)

28 Karen read for a total of 450 minutes in 5 days. If she read for the same amount of time each day, which number sentence can be used to find the number of minutes Karen read each day?
   F \(450 \div 5 = \)     
   G \(450 - 5 = \)     
   H \(450 \times 5 = \)     
   J \(450 + 5 = \)

29 Which number sentence is in the same fact family as \(27 \div 9 = \) ?
   A \(27 + 9 = \)     
   B \(9 \times \) = 27     
   C \(27 - \) = 9     
   D \(\div 27 = 9 \)

30 Which of the following pair of figures shows a reflection?
   F     
   G     
   H     
   J

31 Look at the clocks below.

James practices the piano from 3:45 P.M. to 4:30 P.M. each day. How long does he practice each day?
   A 1 \(\frac{1}{2}\) hours     
   B 1 hour     
   C 45 minutes     
   D 30 minutes

32 Use the ruler on the Mathematics Chart to measure the length of the sides of the shape below.

What is the area and perimeter of the square?
   F \(A = 1 \text{ in}^2 \quad P = 2 \text{ in} \)     
   G \(A = 1 \text{ in}^2 \quad P = 4 \text{ in} \)     
   H \(A = 4 \text{ in}^2 \quad P = 4 \text{ in} \)     
   J \(A = 2 \text{ in}^2 \quad P = 12 \text{ in} \)
33 The table below shows the number of hours children spent volunteering at the playground cleanup.

<table>
<thead>
<tr>
<th>Child</th>
<th>Number of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brian</td>
<td>12</td>
</tr>
<tr>
<td>Judy</td>
<td>?</td>
</tr>
<tr>
<td>Latrell</td>
<td>18</td>
</tr>
<tr>
<td>Monica</td>
<td>10</td>
</tr>
<tr>
<td>Gary</td>
<td>7</td>
</tr>
</tbody>
</table>

The combined hours of Gary and Judy equal the hours Brian spent volunteering. How many hours did Judy volunteer?
- A 12
- B 7
- C 6
- D 5

34 Yi is making soup. How many 16-fl-oz. cans of broth does he need for a recipe that calls for 1 quart of broth?
- F 1
- G 2
- H 3
- J 4

35 Look at the following model.

Which fraction is shown by the model?
- A \( \frac{2}{3} \)
- B \( 1 \frac{1}{3} \)
- C 2
- D \( 2 \frac{1}{3} \)

36 Which of the following holds about 1 quart of water?
- F
- G
- H
- J
37 Latoya plants packets of seeds. The table shows how many seeds there are in 5, 10, and 15 packets.

<table>
<thead>
<tr>
<th>Number of Packets</th>
<th>Number of Seeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>500</td>
</tr>
<tr>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>15</td>
<td>1500</td>
</tr>
</tbody>
</table>

If Latoya plants 8 packets of seeds, how many seeds will she have planted?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

38 If the shapes below are chosen from a bag, what is the probability that a triangle will be picked?

A 2 out of 6
B 3 out of 6
C 1 out of 5
D 3 out of 5

39 Devon put the following letter tiles in a bag.

S W E E P E R

If Devon picks one letter tile without looking, what is the probability that he will pick the letter tile E?

F 1 out of 7
G 3 out of 7
H 3 out of 4
J 4 out of 7

40 Indira has 2 pounds of raisins. She needs 10 oz of raisins for her recipe. What should Indira do to find out if she has enough raisins to complete the recipe?

A Multiply 2 by 16
B Multiply 10 by 16
C Multiply 10 by 2
D Multiply 2 by 8

41 Mr. Levy sells muffins for $12.75 per dozen. Anna needs to buy 36 muffins. What question should Anna answer in order to find out the amount she will spend on muffins?

F How many dozen muffins does she need?
G How much does each muffin cost?
H How much does 12 muffins cost?
J When will the muffins be ready?
42 April pays $4.50 for a ticket to the San Antonio Zoo. While she is there, she buys lunch for $5.75. How much money does April spend at the zoo?

\[
\begin{align*}
\text{Ticket} & : 4.50 \\
\text{Lunch} & : 5.75
\end{align*}
\]

\[4.50 + 5.75 = 10.25 \]

A $1.25  
B $9.75  
C $10.25  
D $11.50

43 The following price list was posted on the wall of an art supply store.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine tip markers</td>
<td>$3.50</td>
</tr>
<tr>
<td>Pack of paintbrushes</td>
<td>$36.00</td>
</tr>
<tr>
<td>Large sketchpad</td>
<td>$6.25</td>
</tr>
<tr>
<td>Box of charcoal</td>
<td>$5.00</td>
</tr>
<tr>
<td>Box of watercolor paints</td>
<td>$45.50</td>
</tr>
</tbody>
</table>

Ruth has $85. She buys a box of watercolor paints and a pack of paint brushes. What additional item can Ruth buy with the money she has left over?

F Fine-tip markers  
G Large sketchpad  
H Box of charcoal  
J Ruth does not have enough left over to buy anything.

44 Each number in Set A is related in the same way to the number beside it in Set B.

<table>
<thead>
<tr>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>17</td>
<td>51</td>
</tr>
<tr>
<td>19</td>
<td>57</td>
</tr>
<tr>
<td>21</td>
<td>63</td>
</tr>
</tbody>
</table>

When given a number in Set A, how can you find its related number in Set B?

A Multiply by 4  
B Multiply by 3  
C Add 30  
D Add 40

45 Marsha draws a figure that has no parallel lines. Which figure does she draw?

F  
G  
H  
J
46 The table shows the numbers that were put into a machine and the different numbers that came out of the machine.

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

Based on the information in the table, what happened to each number that was put into the machine?
A It was multiplied by 3
B It had 3 subtracted from it
C It had 3 added to it
D It was divided by 3

47 Sandra buys 6 boxes of cookies for the bake sale. There are 12 cookies in each box. How many cookies does Sandra bring to the bake sale?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

48 The temperature was 22°F at 8:00 P.M. If the temperature dropped 3°F every hour, what was the temperature at 11:00 P.M.?

F 10°F
G 13°F
H 18°F
J 20°F

49 Fatima saves $5 from her allowance for eight weeks. Which number sentence represents the amount Fatima saves after eight weeks?

A $8 - 5 = $
B $8 + 5 = $
C $8 + 5 = $
D $8 \times 5 = $

50 Jan wants to add a border around her picture. Use the ruler on the Mathematics Chart to measure the dimensions of Jan's picture to the nearest centimeter.

How many centimeters of border will Jan need to decorate her picture?

F 6 cm
G 9 cm
H 18 cm
J 24 cm

102 Mastering the TAKS, Grade 4
Record your answers by coloring in the appropriate bubble for the best answer to each question.
Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for “Not here.”

1. Which number sentence is in the same fact family as \(54 \div 9 = ?\)?
   - A \(9 + ? = 54\)
   - B \(? - 9 = 54\)
   - C \(54 \times 9 = ?\)
   - D \(9 \times ? = 54\)

2. How many lines of symmetry does this shape have?
   - F 0
   - G 1
   - H 2
   - J 3

3. Louise buys 5 boxes of markers. There are 15 markers in each box. How many markers does Louise buy altogether?
   - A 20
   - B 45
   - C 60
   - D 75

4. What fraction does the model below represent?
   - F \(\frac{2}{4}\)
   - G \(\frac{4}{6}\)
   - H \(\frac{3}{4}\)
   - J \(\frac{2}{6}\)

5. Carlos collected 48 seashells over the summer. Andrea collected one fourth as many seashells as Carlos. Which of the number sentences show the total number of seashells Andrea collected?
   - A \(48 \div 4 = 12\)
   - B \(48 \times 4 = 192\)
   - C \(48 - 4 = 44\)
   - D \(48 + 4 = 52\)

6. Malik’s thermos holds 2 L. How many milliliters does it hold?
   - F 2 mL
   - G 20 mL
   - H 200 mL
   - J 2,000 mL

Benchmark Test 3
7 Each number in Set A is related in the same way to the number below it in Set B.

<table>
<thead>
<tr>
<th>Set A</th>
<th>2</th>
<th>4</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set B</td>
<td>14</td>
<td>28</td>
<td>42</td>
</tr>
</tbody>
</table>

If the number in Set A is 8, what is one way to find its related number in Set B?
A Multiply 7 by 7
B Add 8 and 12
C Multiply 8 by 7
D Add 7 and 7

8 Look at the clocks.

Start

End

A zookeeper at the San Antonio Zoo cleans the Crane enclosure from 12:30 P.M. to 2:15 P.M. How long does he spend cleaning the enclosure?
F 45 minutes
G 1 hour
H 1 hour 45 minutes
J 2 hours 30 minutes

9 Which number sentence is shown by the following model?

\[ \frac{4}{6} > \frac{1}{3} \]

A \[ \frac{4}{6} > \frac{1}{3} \]
B \[ \frac{1}{3} = \frac{4}{6} \]
C \[ \frac{2}{6} > \frac{2}{3} \]
D \[ \frac{1}{3} < \frac{1}{6} \]

10 The graph below shows the speeds of certain animals.

Which animal’s speed is 30 miles per hour faster than the elephant?
F Lion
G Giraffe
H Antelope
J Cheetah
11 Lisa buys 3 CDs for $5 each. Which number sentence can be used to find the amount of money Lisa spends?

A $5 + 3 = $
B $5 \times 3 = $
C $5 + 5 = $
D $3 \times 3 = $

12 Which type of angle best describes angle $D$?

F Obtuse
G Acute
H Straight
J Right

13 The temperature was 56°F at 8:00 P.M. It dropped 12°F by midnight. What was the temperature at midnight?

A 34°F
B 40°F
C 44°F
D 68°F

14 The model is shaded to represent $\frac{7}{10}$. Which decimal does the model represent?

F 0.17
G 1.07
H 1.7
J 17.0

15 Lita goes to a bookstore. She buys a novel for $11.50, a journal for $5.00, and 3 bookmarks. What information is needed to find the total amount Lita spends at the bookstore?

A The size of the bookmarks
B The cost of the bookmarks
C The title of the novel
D The name of the bookstore

16 Val weighs 70 lbs. When she gets on the scale holding her puppy, the scale reads 84 lbs. When Vincent gets on the scale holding the puppy, the scale reads 78 lbs. How much does Vincent weigh?

F 50 lbs
G 55 lbs
H 64 lbs
J 92 lbs
17 Which model is shaded to show a fraction equivalent to $\frac{2}{8}$?

A  

B  

C  

D  

18 Eduardo buys 3 grapefruits for $1.50. What is the cost of 10 grapefruits?

F  $2.50  
G  $3.00  
H  $3.50  
J  $5.00  

19 Cindy arranges stickers in the pattern shown below.

Which number sentence best represents Cindy’s arrangement of stickers?

A  $5 + 5 = 10$  
B  $5 \times 3 = 15$  
C  $5 \times 5 = 25$  
D  $25 - 5 = 20$  

20 Which point on the number line best represents $\frac{3}{4}$?

F  A  
G  B  
H  C  
J  D  

Go on
21 Guadalupe Peak Mountain is 8,749 feet high. El Capitan Mountain is 8,085 feet high. Which is the best estimate of the total number of feet for the height of both mountains?
A About 1,000 feet
B About 8,000 feet
C About 10,000 feet
D About 17,000 feet

22 There are 23 cookies in the cookie jar. If 9 cookies are eaten, how many cookies are left in the cookie jar?
F 10
G 12
H 13
J 14

23 Adrian has a bag with 50 raffle tickets numbered 1 to 50. If he picks out 1 raffle ticket without looking, what is the probability that the number on the ticket will be a number below 30?
A 1 out of 30
B 29 out of 50
C 1 out of 20
D 20 out of 50

24 How many edges does this shape have?

F 4
G 6
H 8
J 12

25 Which of the following is the number 6,090,200?
A Six million, nine thousand, two hundred
B Six million, ninety thousand, two hundred
C Six hundred-ninety thousand, two hundred
D Six million, ninety-two thousand

26 Which expression is represented by the model?

F 2.5 – 1.3
G 2.0 – 1.0
H 2.3 – 1.5
J 5.0 – 3.0
27 Which pair of numbers best completes the equation?

\[ \square \times 10 = \square \]
A 2 and 20
B 4 and 14
C 6 and 26
D 8 and 800

28 Look at the spinner below.

If Jim spins the spinner twice, what are all the possible outcomes?
F Circle, square
G Circle, circle
H Square, circle
J 2 squares, 2 circles, 1 square and 1 circle

29 Which of the following shapes has two sets of parallel lines?

A
B
C
D

30 The table below shows the number of hours in 1 day, 3 days, and 5 days.

<table>
<thead>
<tr>
<th>Hours in Days</th>
<th>Number of Days</th>
<th>1</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours in Days</td>
<td>24</td>
<td>72</td>
<td>120</td>
<td></td>
</tr>
</tbody>
</table>

What is one way to find the number of hours in 7 days?
F Divide 24 by 7
G Add 7 to 24
H Subtract 7 from 24
J Multiply 7 by 24
31 The table shows the number of shots made by a basketball player during a game.

<table>
<thead>
<tr>
<th>Quarters</th>
<th>Shots Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

If the pattern continues, how can the number of shots made in the fourth quarter be determined?
A Multiply 2 by the quarter
B Add 1 to the quarter
C Multiply one by the quarter
D Add 2 to the quarter

32 Amy makes a graph to show the types of pets her classmates own.

Which pets are owned by the same number of classmates?
F Cat and dog
G Cat and bird
H Fish and hamster
J Dog and bird

33 Use the ruler on the Mathematics Chart to measure the sides of the shape to the nearest inch.

What is the perimeter of the shape?
A 2 inches
B 5 inches
C 10 inches
D 12 inches

34 There are 28 books on each shelf of a bookcase. The bookcase has 3 shelves. Which expression best estimates the total number of books in the bookcase?
F 30 + 3
G 20 + 3
H 30 × 3
J 30 ÷ 3
35 Kevin drinks 64 glasses of water in 8 days. If he drinks the same number of glasses each day, which number sentence can be used to find how much water he drinks in one day?

A $64 - 8 = \underline{\hspace{2cm}}$
B $64 + 8 = \underline{\hspace{2cm}}$
C $64 \times 8 = \underline{\hspace{2cm}}$
D $64 \div 8 = \underline{\hspace{2cm}}$

36 Taryn drew these shapes.

What is a good description of the shapes Taryn drew?

F Figures with more than 1 line of symmetry
G Figures with more than 1 set of parallel lines
H Figures with only acute angles
J Figures with 5 or less sides

37 Javier uses cubes like the one shown below to make name plates. Use the ruler on the Mathematics Chart to measure the line segment under the cube in centimeters.

About how many centimeters long is a name plate if Javier uses 12 cubes?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.
38 Alicia shaded the model below to represent $\frac{25}{100}$.

What decimal did Alicia shade?
F 1.20
G 1.25
H 1.50
J 2.00

39 Bill sells bags of marbles. The table below shows how many marbles there are in 6 bags, 8 bags, and 10 bags.

<table>
<thead>
<tr>
<th>Number of Bags</th>
<th>Number of Marbles</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

If Bills sells 12 bags of marbles, how many marbles did he sell?
A 70
B 90
C 110
D 120

40 It takes the pet groomer between 9 and 12 minutes to bathe a dog. At this rate, how many dogs can the groomer bathe in 1 hour?
F About 6 dogs
G About 8 dogs
H About 10 dogs
J About 12 dogs

41 Look at the figure below.

What is the volume of the object?
A 75 cubic units
B 125 cubic units
C 150 cubic units
D 250 cubic units

42 Mrs. Cutrone displays a solid figure that has 5 faces, 8 edges, and 5 vertices. Which figure does she display?
F cylinder
G sphere
H square pyramid
J cube
43 Ellen and her friends collect comics as shown in the table below.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Comic books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellen</td>
<td>150</td>
</tr>
<tr>
<td>Greg</td>
<td>82</td>
</tr>
<tr>
<td>Lainie</td>
<td>100</td>
</tr>
<tr>
<td>Robert</td>
<td>?</td>
</tr>
<tr>
<td>Meto</td>
<td>?</td>
</tr>
</tbody>
</table>

Ellen knows that she has twice as many comic books as Meto and that Meto has 10 more comic books than Robert. How can Ellen justify her conclusion?

A Add 10 to 75
B Subtract 10 from 150
C Subtract 10 from the quotient of 150 and 2
D Multiply 150 by 2

44 Jordan and his friends made 13 ice-cream sundaes at Jordan's party. They decorated each sundae with a packet of 100 sprinkles. How many sprinkles did they use to decorate all 13 sundaes?

F 100
G 1,000
H 1,030
J 1,300

45 A penny has a mass of about 3 g. Estimate the mass of a roll of 50 pennies.

A about 50 g
B about 75 g
C about 100 g
D about 150 g

46 Kim reads the class thermometer and records the temperature.

What is the temperature Kim records?

F 53°F
G 55°F
H 57°F
J 59°F

47 The swim team swims 10 laps every practice. What information is needed to find the total distance they swim every practice?

A The temperature of the water
B How fast they swim
C What time practice starts
D The length of a lap
Which pair of figures shows a reflection?

F

G

H

J

Which pair of figures shows a reflection?

49 Steven has 3 yards of fabric. He needs 12 feet of fabric to complete his class project. What should Steven do to find out whether he has enough fabric to complete his project?

A Subtract 3 from 12
B Multiply 12 by 3
C Multiply 3 by 3
D Add 12 and 3

50 Tara’s Tasty Treats sells about 125 chocolate milkshakes each day. About how many milkshakes do they sell in 5 days? Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.