### Texas Assessment of Knowledge and Skills

**Performance Level Descriptors**

**Mathematics**

**Grade 3**

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
</table>
| 1. Have poor reading skills and a limited math vocabulary  
2. Lack persistence, endurance, and stamina  
3. Dislike and are uncomfortable with math  
4. Rarely retain or apply prior math knowledge  
5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)  
6. Operate at a concrete level; require manipulatives to understand math concepts  
7. Are dependent on models of geometric shapes and solids  
8. Have a limited understanding of measurement concepts and tools  
9. Make few connections among math concepts  
10. Have limited number sense (e.g., estimation, rounding, place value)  
11. Struggle with basic addition, subtraction, and multiplication facts and algorithms; have difficulty computing with accuracy | 1. Can read for meaning and detail and have an adequate math vocabulary  
2. Often exhibit persistence, endurance, and stamina  
3. Are somewhat comfortable with math  
4. Often retain and apply prior math knowledge  
5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)  
6. Are developing abstract thinking through the use of models  
7. Can usually visualize geometric shapes and solids  
8. Have an adequate understanding of measurement concepts and tools  
9. Make some connections among math concepts  
10. Have general number sense (e.g., estimation, rounding, place value)  
11. Demonstrate adequate knowledge of basic addition, | 1. Are fluent readers with a rich math vocabulary  
2. Consistently exhibit persistence, endurance, and stamina  
3. Enjoy math and are confident about their math skills  
4. Consistently retain and apply prior math knowledge  
5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)  
6. Are able to think abstractly; can connect operations with concepts  
7. Can consistently visualize geometric shapes and solids  
8. Have a thorough understanding of measurement concepts and tools  
9. Make connections among math concepts  
10. Have excellent number sense (e.g., estimation, rounding, place value)  
11. Demonstrate thorough |
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Are often unable to recognize patterns</td>
<td>subtraction, and multiplication facts and algorithms; can usually compute with accuracy</td>
<td>knowledge of basic addition, subtraction, and multiplication facts and algorithms; can consistently compute with accuracy</td>
</tr>
<tr>
<td>12. Can usually recognize and extend patterns</td>
<td></td>
<td>12. Can easily recognize and extend patterns</td>
</tr>
</tbody>
</table>
# Texas Assessment of Knowledge and Skills
## Performance Level Descriptors
### Mathematics
#### Grade 4

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have poor reading skills and a limited math vocabulary</td>
<td>1. Can read for meaning and detail and have an adequate math vocabulary</td>
<td>1. Are fluent readers with a rich math vocabulary</td>
</tr>
<tr>
<td>2. Lack persistence, endurance, and stamina</td>
<td>2. Often exhibit persistence, endurance, and stamina</td>
<td>2. Consistently exhibit persistence, endurance, and stamina</td>
</tr>
<tr>
<td>3. Dislike and are uncomfortable with math</td>
<td>3. Are somewhat comfortable with math</td>
<td>3. Enjoy math and are confident about their math skills</td>
</tr>
<tr>
<td>4. Rarely retain or apply prior math knowledge</td>
<td>4. Often retain and apply prior math knowledge</td>
<td>4. Consistently retain and apply prior math knowledge</td>
</tr>
<tr>
<td>5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)</td>
<td>5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)</td>
<td>5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)</td>
</tr>
<tr>
<td>6. Operate at a concrete level; require manipulatives to understand math concepts</td>
<td>6. Are developing abstract thinking through the use of models</td>
<td>6. Are able to think abstractly; can connect operations with concepts</td>
</tr>
<tr>
<td>7. Are dependent on models of geometric shapes and solids</td>
<td>7. Can usually visualize geometric shapes and solids</td>
<td>7. Can consistently visualize geometric shapes and solids</td>
</tr>
<tr>
<td>8. Have a limited understanding of measurement concepts and tools</td>
<td>8. Have an adequate understanding of measurement concepts and tools</td>
<td>8. Have a thorough understanding of measurement concepts and tools</td>
</tr>
<tr>
<td>10. Have limited number sense (e.g., estimation, rounding, place value)</td>
<td>10. Have general number sense (e.g., estimation, rounding, place value)</td>
<td>10. Have excellent number sense (e.g., estimation, rounding, place value)</td>
</tr>
<tr>
<td>11. Struggle with basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with accuracy</td>
<td>11. Demonstrate adequate knowledge of basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with accuracy</td>
<td>11. Demonstrate thorough knowledge of basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with accuracy</td>
</tr>
<tr>
<td>12. Are often unable to recognize patterns</td>
<td>Can usually recognize and extend patterns</td>
<td>Can easily recognize and extend patterns</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>division facts and algorithms; can usually compute with accuracy</td>
<td></td>
<td>subtraction, multiplication, and division facts and algorithms; can consistently compute with accuracy</td>
</tr>
</tbody>
</table>
## Texas Assessment of Knowledge and Skills
### Performance Level Descriptors

#### Mathematics

**Grade 5**

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Have poor reading skills and a limited math vocabulary</td>
<td><strong>1.</strong> Can read for meaning and detail and have an adequate math vocabulary</td>
<td><strong>1.</strong> Are fluent readers with a rich math vocabulary</td>
</tr>
<tr>
<td><strong>2.</strong> Lack persistence, endurance, and stamina</td>
<td><strong>2.</strong> Often exhibit persistence, endurance, and stamina</td>
<td><strong>2.</strong> Consistently exhibit persistence, endurance, and stamina</td>
</tr>
<tr>
<td><strong>3.</strong> Dislike and are uncomfortable with math</td>
<td><strong>3.</strong> Are somewhat comfortable with math</td>
<td><strong>3.</strong> Enjoy math and are confident about their math skills</td>
</tr>
<tr>
<td><strong>4.</strong> Rarely retain or apply prior math knowledge</td>
<td><strong>4.</strong> Often retain and apply prior math knowledge</td>
<td><strong>4.</strong> Consistently retain and apply prior math knowledge</td>
</tr>
<tr>
<td><strong>5.</strong> Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)</td>
<td><strong>5.</strong> Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)</td>
<td><strong>5.</strong> Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)</td>
</tr>
<tr>
<td><strong>6.</strong> Operate at a concrete level; require manipulatives to understand math concepts</td>
<td><strong>6.</strong> Are developing abstract thinking through the use of models</td>
<td><strong>6.</strong> Are able to think abstractly; can connect operations with concepts</td>
</tr>
<tr>
<td><strong>7.</strong> Are dependent on models of geometric shapes and solids</td>
<td><strong>7.</strong> Can usually visualize geometric shapes and solids</td>
<td><strong>7.</strong> Can consistently visualize geometric shapes and solids</td>
</tr>
<tr>
<td><strong>8.</strong> Have a limited understanding of measurement concepts and tools</td>
<td><strong>8.</strong> Have an adequate understanding of measurement concepts and tools</td>
<td><strong>8.</strong> Have a thorough understanding of measurement concepts and tools</td>
</tr>
<tr>
<td><strong>9.</strong> Make few connections among math concepts</td>
<td><strong>9.</strong> Make some connections among math concepts</td>
<td><strong>9.</strong> Make connections among math concepts</td>
</tr>
<tr>
<td><strong>10.</strong> Have limited number sense (e.g., estimation, rounding, fractions, decimals)</td>
<td><strong>10.</strong> Have general number sense (e.g., estimation, rounding, fractions, decimals)</td>
<td><strong>10.</strong> Have excellent number sense (e.g., estimation, rounding, fractions, decimals)</td>
</tr>
<tr>
<td><strong>11.</strong> Struggle with basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with</td>
<td><strong>11.</strong> Demonstrate adequate knowledge of basic addition, subtraction, multiplication, and</td>
<td><strong>11.</strong> Demonstrate thorough knowledge of basic addition,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>accuracy</th>
<th>division facts and algorithms; can usually compute with accuracy</th>
<th>subtraction, multiplication, and division facts and algorithms; can consistently compute with accuracy</th>
</tr>
</thead>
</table>
# Texas Assessment of Knowledge and Skills
## Performance Level Descriptors

### Mathematics
#### Grade 6

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have poor reading skills and a limited math vocabulary</td>
<td>1. Can read for meaning and detail and have an adequate math vocabulary</td>
<td>1. Are fluent readers with a rich math vocabulary</td>
</tr>
<tr>
<td>2. Lack persistence, endurance, and stamina</td>
<td>2. Often exhibit persistence, endurance, and stamina</td>
<td>2. Consistently exhibit persistence, endurance, and stamina</td>
</tr>
<tr>
<td>3. Dislike and are uncomfortable with math</td>
<td>3. Are somewhat comfortable with math</td>
<td>3. Enjoy math and are confident about their math skills</td>
</tr>
<tr>
<td>4. Rarely retain or apply prior math knowledge</td>
<td>4. Often retain and apply prior math knowledge</td>
<td>4. Consistently retain and apply prior math knowledge</td>
</tr>
<tr>
<td>5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)</td>
<td>5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)</td>
<td>5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)</td>
</tr>
<tr>
<td>6. Operate at a concrete level; have difficulty with abstract thinking (e.g., algebraic reasoning)</td>
<td>6. Demonstrate adequate abstract thinking skills (e.g., algebraic reasoning)</td>
<td>6. Demonstrate strong abstract thinking skills (e.g., algebraic reasoning)</td>
</tr>
<tr>
<td>7. Are dependent on models of geometric shapes and solids</td>
<td>7. Can usually visualize geometric shapes and solids</td>
<td>7. Can consistently visualize geometric shapes and solids</td>
</tr>
<tr>
<td>8. Have a limited understanding of measurement concepts and tools</td>
<td>8. Have an adequate understanding of measurement concepts and tools</td>
<td>8. Have a thorough understanding of measurement concepts and tools</td>
</tr>
<tr>
<td>10. Have limited number sense (e.g., estimation, fractions, decimals, percents)</td>
<td>10. Have general number sense (e.g., estimation, fractions, decimals, percents)</td>
<td>10. Have excellent number sense (e.g., estimation, fractions, decimals, percents)</td>
</tr>
<tr>
<td>11. Struggle with basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with</td>
<td>11. Demonstrate adequate knowledge of basic addition,</td>
<td>11. Demonstrate thorough knowledge of basic addition,</td>
</tr>
<tr>
<td>12. Have a limited understanding of proportions</td>
<td>subtraction, multiplication, and division facts and algorithms; can usually compute with accuracy</td>
<td></td>
</tr>
<tr>
<td>13. Show limited understanding of math symbols and formulas</td>
<td>subtraction, multiplication, and division facts and algorithms; can consistently compute with accuracy</td>
<td></td>
</tr>
<tr>
<td>12. Have an emerging understanding of proportions</td>
<td>12. Understand proportions and are developing proportional reasoning skills</td>
<td></td>
</tr>
<tr>
<td>13. Show adequate understanding of math symbols and formulas</td>
<td>13. Show thorough understanding of math symbols and formulas</td>
<td></td>
</tr>
</tbody>
</table>
Texas Assessment of Knowledge and Skills
Performance Level Descriptors

Mathematics
Grade 7

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

### Students Who Did Not Meet the Standard

1. Have poor reading skills and a limited math vocabulary
2. Lack persistence, endurance, and stamina
3. Dislike and are uncomfortable with math
4. Rarely retain or apply prior math knowledge
5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)
6. Operate at a concrete level; have difficulty with abstract thinking (e.g., algebraic reasoning)
7. Are dependent on models of geometric shapes and solids
8. Have a limited understanding of measurement concepts and tools
9. Make few connections among math concepts
10. Have limited number sense (e.g., estimation, fractions, decimals, percents)
11. Struggle with basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with

### Students Who Met the Standard

1. Can read for meaning and detail and have an adequate math vocabulary
2. Often exhibit persistence, endurance, and stamina
3. Are somewhat comfortable with math
4. Often retain and apply prior math knowledge
5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)
6. Demonstrate adequate abstract thinking skills (e.g., algebraic reasoning)
7. Can usually visualize geometric shapes and solids
8. Have an adequate understanding of measurement concepts and tools
9. Make some connections among math concepts
10. Have general number sense (e.g., estimation, fractions, decimals, percents)
11. Demonstrate adequate knowledge of basic addition,

### Students Who Achieved Commended Performance

1. Are fluent readers with a rich math vocabulary
2. Consistently exhibit persistence, endurance, and stamina
3. Enjoy math and are confident about their math skills
4. Consistently retain and apply prior math knowledge
5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)
6. Demonstrate strong abstract thinking skills (e.g., algebraic reasoning)
7. Can consistently visualize geometric shapes and solids
8. Have a thorough understanding of measurement concepts and tools
9. Make connections among math concepts
10. Have excellent number sense (e.g., estimation, fractions, decimals, percents)
11. Demonstrate thorough knowledge of basic addition,
<table>
<thead>
<tr>
<th>accuracy</th>
<th>subtraction, multiplication, and division facts and algorithms; can usually compute with accuracy</th>
<th>subtraction, multiplication, and division facts and algorithms; can consistently compute with accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Have limited proportional reasoning skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Show limited understanding of math symbols and formulas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Have adequate proportional reasoning skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Show adequate understanding of math symbols and formulas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Have and can apply proportional reasoning skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Show thorough understanding of math symbols and formulas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Texas Assessment of Knowledge and Skills
## Performance Level Descriptors
### Mathematics
#### Grade 8

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have poor reading skills and a limited math vocabulary</td>
<td>1. Can read for meaning and detail and have an adequate math vocabulary</td>
<td>1. Are fluent readers with a rich math vocabulary</td>
</tr>
<tr>
<td>2. Lack persistence, endurance, and stamina</td>
<td>2. Often exhibit persistence, endurance, and stamina</td>
<td>2. Consistently exhibit persistence, endurance, and stamina</td>
</tr>
<tr>
<td>3. Dislike and are uncomfortable with math</td>
<td>3. Are somewhat comfortable with math</td>
<td>3. Enjoy math and are confident about their math skills</td>
</tr>
<tr>
<td>4. Rarely retain or apply prior math knowledge</td>
<td>4. Often retain and apply prior math knowledge</td>
<td>4. Consistently retain and apply prior math knowledge</td>
</tr>
<tr>
<td>5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)</td>
<td>5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)</td>
<td>5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)</td>
</tr>
<tr>
<td>6. Operate at a concrete level; have difficulty with abstract thinking (e.g., algebraic reasoning)</td>
<td>6. Demonstrate adequate abstract thinking skills (e.g., algebraic reasoning)</td>
<td>6. Demonstrate strong abstract thinking skills (e.g., algebraic reasoning)</td>
</tr>
<tr>
<td>7. Are dependent on models of geometric shapes and solids</td>
<td>7. Can usually visualize geometric shapes and solids</td>
<td>7. Can consistently visualize geometric shapes and solids</td>
</tr>
<tr>
<td>8. Have a limited understanding of measurement concepts and tools</td>
<td>8. Have an adequate understanding of measurement concepts and tools</td>
<td>8. Have a thorough understanding of measurement concepts and tools</td>
</tr>
<tr>
<td>10. Have limited number sense (e.g., estimation, fractions, decimals, percents)</td>
<td>10. Have general number sense (e.g., estimation, fractions, decimals, percents)</td>
<td>10. Have excellent number sense (e.g., estimation, fractions, decimals, percents)</td>
</tr>
<tr>
<td>11. Struggle with basic addition, subtraction, multiplication, and division facts and algorithms; have difficulty computing with</td>
<td>11. Demonstrate adequate knowledge of basic addition,</td>
<td>11. Demonstrate thorough knowledge of basic addition,</td>
</tr>
<tr>
<td>accuracy</td>
<td>subtraction, multiplication, and division facts and algorithms; can usually compute with accuracy</td>
<td>subtraction, multiplication, and division facts and algorithms; can consistently compute with accuracy</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Have limited proportional reasoning skills</td>
<td>Can apply proportional reasoning skills to familiar situations</td>
<td>Can apply proportional reasoning skills to novel situations</td>
</tr>
<tr>
<td>Show limited understanding of math symbols and formulas</td>
<td>Show adequate understanding of math symbols and formulas</td>
<td>Show thorough understanding of math symbols and formulas</td>
</tr>
<tr>
<td>Have difficulty recognizing multiple representations of linear functions</td>
<td>Have an emerging ability to recognize multiple representations of linear functions</td>
<td>Are able to recognize multiple representations of linear functions</td>
</tr>
</tbody>
</table>
### Texas Assessment of Knowledge and Skills
#### Performance Level Descriptors

#### Mathematics

**Grade 9**

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have poor reading skills and a limited math vocabulary</td>
<td>1. Can read for meaning and detail and have an adequate math vocabulary</td>
<td>1. Are fluent readers with a rich math vocabulary</td>
</tr>
<tr>
<td>2. Lack persistence, endurance, and stamina</td>
<td>2. Often exhibit persistence, endurance, and stamina</td>
<td>2. Consistently exhibit persistence, endurance, and stamina</td>
</tr>
<tr>
<td>3. Dislike and are uncomfortable with math</td>
<td>3. Are somewhat comfortable with math</td>
<td>3. Enjoy math and are confident about their math skills</td>
</tr>
<tr>
<td>4. Rarely retain or apply prior math knowledge</td>
<td>4. Often retain and apply prior math knowledge</td>
<td>4. Consistently retain and apply prior math knowledge</td>
</tr>
<tr>
<td>5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)</td>
<td>5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)</td>
<td>5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)</td>
</tr>
<tr>
<td>6. Have difficulty with abstract thinking and algebraic reasoning (e.g., transferring between variables and numbers)</td>
<td>6. Demonstrate adequate abstract thinking skills and algebraic reasoning (e.g., transferring between variables and numbers)</td>
<td>6. Demonstrate strong abstract thinking skills and can reason algebraically (e.g., transferring between variables and numbers)</td>
</tr>
<tr>
<td>7. Are dependent on models of geometric shapes and solids</td>
<td>7. Can usually visualize geometric shapes and solids</td>
<td>7. Can consistently visualize geometric shapes and solids</td>
</tr>
<tr>
<td>8. Have a limited understanding of measurement concepts and tools</td>
<td>8. Have an adequate understanding of measurement concepts and tools</td>
<td>8. Have a thorough understanding of measurement concepts and tools</td>
</tr>
<tr>
<td>10. Have little or no understanding of quadratic functions</td>
<td>10. Have a general understanding of quadratic functions</td>
<td>10. Have a thorough understanding of quadratic functions</td>
</tr>
<tr>
<td>11. Have little or no understanding of systems of linear equations</td>
<td>11. Have a general understanding</td>
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<tr>
<td>12. Have difficulty identifying and using the appropriate formulas to</td>
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<tr>
<td>11.</td>
<td>Have a thorough understanding of systems of linear equations</td>
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<tr>
<td>12.</td>
<td>Consistently identify and use appropriate formulas to solve problems</td>
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<tr>
<td>13.</td>
<td>Understand and begin to represent equations and functions in multiple ways</td>
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<tr>
<td>14.</td>
<td>Can easily represent equations and functions in multiple ways</td>
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<td></td>
<td>Can solve problems with or without a graphing calculator</td>
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<tr>
<td></td>
<td>Can solve problems with or without a graphing calculator</td>
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</tr>
</tbody>
</table>

- Can sometimes identify and use appropriate formulas to solve problems
- Can easily represent equations and functions in multiple ways
- Can solve problems with or without a graphing calculator
# Texas Assessment of Knowledge and Skills
## Performance Level Descriptors
### Mathematics
#### Grade 10

<table>
<thead>
<tr>
<th>Did Not Meet the Standard</th>
<th>Met the Standard</th>
<th>Commended Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory performance; below state passing standard; insufficient understanding of the mathematics TEKS curriculum</td>
<td>Satisfactory performance; at or above state passing standard; sufficient understanding of the mathematics TEKS curriculum</td>
<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students Who Did Not Meet the Standard</th>
<th>Students Who Met the Standard</th>
<th>Students Who Achieved Commended Performance</th>
</tr>
</thead>
</table>
| 1. Have poor reading skills and a limited math vocabulary  
2. Lack persistence, endurance, and stamina  
3. Dislike and are uncomfortable with math  
4. Rarely retain or apply prior math knowledge  
5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)  
6. Have difficulty with abstract thinking and algebraic reasoning (e.g., transferring between variables and numbers)  
7. Are dependent on models of geometric shapes and solids  
8. Have a limited understanding of measurement concepts and tools  
9. Make few connections among math concepts  
10. Have little or no understanding of quadratic functions  
11. Have little or no understanding of systems of linear equations  
12. Have difficulty identifying and using the appropriate formulas to | 1. Can read for meaning and detail and have an adequate math vocabulary  
2. Often exhibit persistence, endurance, and stamina  
3. Are somewhat comfortable with math  
4. Often retain and apply prior math knowledge  
5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)  
6. Demonstrate adequate abstract thinking skills and algebraic reasoning (e.g., transferring between variables and numbers)  
7. Can usually visualize geometric shapes and solids  
8. Have an adequate understanding of measurement concepts and tools  
9. Make some connections among math concepts  
10. Have a general understanding of quadratic functions  
11. Have a general understanding of quadratic functions | 1. Are fluent readers with a rich math vocabulary  
2. Consistently exhibit persistence, endurance, and stamina  
3. Enjoy math and are confident about their math skills  
4. Consistently retain and apply prior math knowledge  
5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)  
6. Demonstrate strong abstract thinking skills and can reason algebraically (e.g., transferring between variables and numbers)  
7. Can consistently visualize geometric shapes and solids  
8. Have a thorough understanding of measurement concepts and tools  
9. Make connections among math concepts  
10. Have a thorough understanding of quadratic functions |
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<tbody>
<tr>
<td>11.</td>
<td>Have a thorough understanding of systems of linear equations</td>
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<tr>
<td>12.</td>
<td>Consistently identify and use the appropriate formulas to solve problems</td>
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<td>13.</td>
<td>Can easily represent equations and functions in multiple ways</td>
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<tr>
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<td>Understand and begin to represent equations and functions in multiple ways</td>
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<tr>
<td>14.</td>
<td>Have a general understanding of the graphing functions on a graphing calculator</td>
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<tr>
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<td>Can solve problems with or without a graphing calculator</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Fail to make connections among different representations of equations and functions</td>
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</tr>
<tr>
<td>14.</td>
<td>Are dependent on a calculator for basic skills and have limited ability to use a graphing calculator</td>
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<td>11.</td>
<td>Have a thorough understanding of systems of linear equations</td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

- Solve problems
- Fail to make connections among different representations of equations and functions
- Are dependent on a calculator for basic skills and have limited ability to use a graphing calculator
- Can sometimes identify and use the appropriate formulas to solve problems
- Understand and begin to represent equations and functions in multiple ways
- Have a general understanding of the graphing functions on a graphing calculator
- Can easily represent equations and functions in multiple ways
- Can solve problems with or without a graphing calculator
- Can identify and use the appropriate formulas to solve problems
- Can easily represent equations and functions in multiple ways
- Can solve problems with or without a graphing calculator
Texas Assessment of Knowledge and Skills
Performance Level Descriptors

Mathematics
Grade 11

<table>
<thead>
<tr>
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<tbody>
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<td>High academic achievement; considerably above state passing standard; thorough understanding of the mathematics TEKS curriculum</td>
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</tbody>
</table>

**Students Who Did Not Meet the Standard**

1. Have poor reading skills and a limited math vocabulary
2. Lack persistence, endurance, and stamina
3. Dislike and are uncomfortable with math
4. Rarely retain or apply prior math knowledge
5. Have poor problem-solving skills (e.g., use few strategies, have difficulty distinguishing between essential and extraneous information, cannot apply necessary skills, frequently guess, do not justify answers, have a limited grasp of reasonableness)
6. Have difficulty with abstract thinking and algebraic reasoning (e.g., transferring between variables and numbers)
7. Are dependent on models of geometric shapes and solids
8. Have a limited understanding of complex measurement concepts
9. Make few connections among math concepts
10. Have little or no understanding of quadratic functions
11. Have little or no understanding of systems of linear equations
12. Have difficulty identifying and using the appropriate formulas to

**Students Who Met the Standard**

1. Can read for meaning and detail and have an adequate math vocabulary
2. Often exhibit persistence, endurance, and stamina
3. Are somewhat comfortable with math
4. Often retain and apply prior math knowledge
5. Have adequate problem-solving skills (e.g., use some strategies, can usually distinguish between essential and extraneous information, apply necessary skills, often justify answers and check solutions for reasonableness)
6. Demonstrate adequate abstract thinking skills and algebraic reasoning (e.g., transferring between variables and numbers)
7. Can usually visualize geometric shapes and solids
8. Have an adequate understanding of complex measurement concepts
9. Make some connections among math concepts
10. Have a general understanding of quadratic functions

**Students Who Achieved Commended Performance**

1. Are fluent readers with a rich math vocabulary
2. Consistently exhibit persistence, endurance, and stamina
3. Enjoy math and are confident about their math skills
4. Consistently retain and apply prior math knowledge
5. Have strong problem-solving skills (e.g., use a variety of strategies, distinguish between essential and extraneous information, apply necessary skills, consistently justify answers and check solutions for reasonableness)
6. Demonstrate strong abstract thinking skills and can reason algebraically (e.g., transferring between variables and numbers)
7. Can consistently visualize geometric shapes and solids
8. Have a thorough understanding of complex measurement concepts
9. Make connections among math concepts
10. Have a thorough understanding of quadratic functions
| solve problems | of systems of linear equations | 11. Have a thorough understanding of systems of linear equations |
| 13. Fail to make connections among different representations of equations and functions | 12. Can sometimes identify and use the appropriate formulas to solve problems | 12. Consistently identify and use the appropriate formulas to solve problems |
| 14. Are dependent on a calculator for basic skills and have limited ability to use a graphing calculator | 13. Understand and begin to represent equations and functions in multiple ways | 13. Can easily represent equations and functions in multiple ways |
| | 14. Have a general understanding of the graphing functions on a graphing calculator | 14. Can solve problems with or without a graphing calculator |
# Texas Assessment of Knowledge and Skills

## Distinguishing Features

### Mathematics

<table>
<thead>
<tr>
<th>GRADE 3</th>
<th>GRADE 4</th>
<th>GRADE 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Did Not Meet the Standard vs. Met the Standard</strong></td>
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</tr>
<tr>
<td>Students Who Met the Standard</td>
<td>Students Who Met the Standard</td>
<td>Students Who Met the Standard</td>
</tr>
<tr>
<td>1. Possess on-grade-level reading skills and math vocabulary in order to extract important information to solve problems</td>
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<td>1. Possess on-grade-level reading skills and math vocabulary in order to extract important information to solve problems</td>
</tr>
<tr>
<td>2. Apply prior math knowledge to new learning</td>
<td>2. Apply prior math knowledge to new learning</td>
<td>2. Apply prior math knowledge to new learning</td>
</tr>
<tr>
<td>3. Demonstrate recall and accuracy with basic computations</td>
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</tr>
<tr>
<td><strong>GRADE 3</strong></td>
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<tr>
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<td>Students Who Achieved Commended Performance</td>
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<td>Students Who Achieved Commended Performance</td>
</tr>
<tr>
<td>1. Use multiple problem-solving strategies and logic to find reasonable solutions</td>
<td>1. Use multiple problem-solving strategies and logic to find reasonable solutions</td>
<td>1. Use multiple problem-solving strategies and logic to find reasonable solutions</td>
</tr>
<tr>
<td>2. Transfer math knowledge between abstract and concrete applications</td>
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</tr>
<tr>
<td>3. Use connections among math concepts to make generalizations and apply them to new situations</td>
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### Texas Assessment of Knowledge and Skills

#### Distinguishing Features

### Mathematics

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<tr>
<th>GRADE 6</th>
<th>GRADE 7</th>
<th>GRADE 8</th>
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<tbody>
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<td>1. Possess on-grade-level reading skills and math vocabulary in order to extract important information to solve problems</td>
</tr>
<tr>
<td>2. Apply prior math knowledge to new learning</td>
<td>2. Apply prior math knowledge to new learning</td>
<td>2. Apply prior math knowledge to new learning</td>
</tr>
<tr>
<td>3. Demonstrate proficiency with basic computations, tools, symbols, and formulas</td>
<td>3. Demonstrate proficiency with basic computations, tools, symbols, and formulas</td>
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Texas Assessment of Knowledge and Skills
Distinguishing Features

Mathematics

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<tr>
<th>GRADE 9</th>
<th>GRADE 10</th>
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<tbody>
<tr>
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<td>Students Who Met the Standard</td>
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