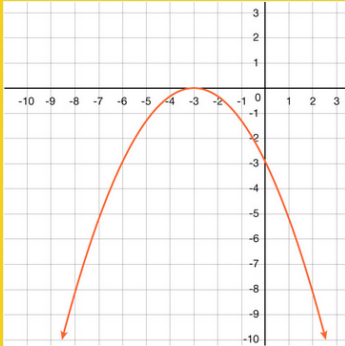
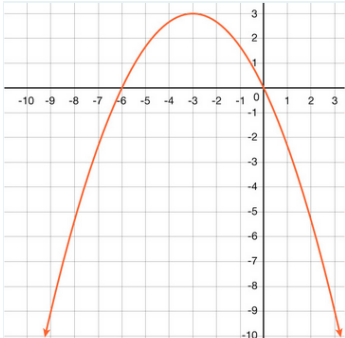
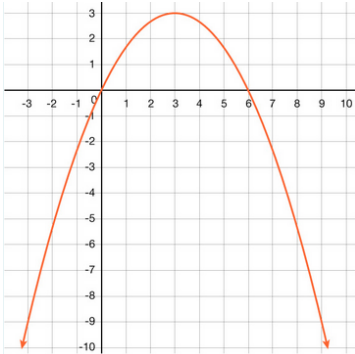
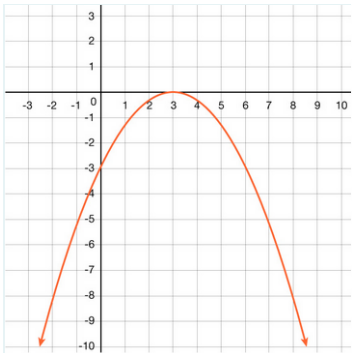
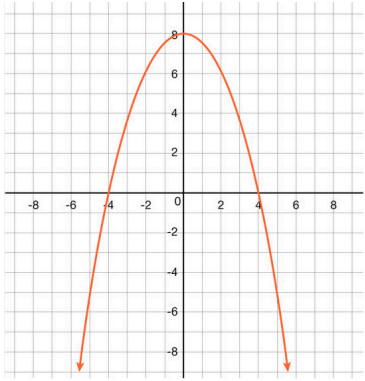


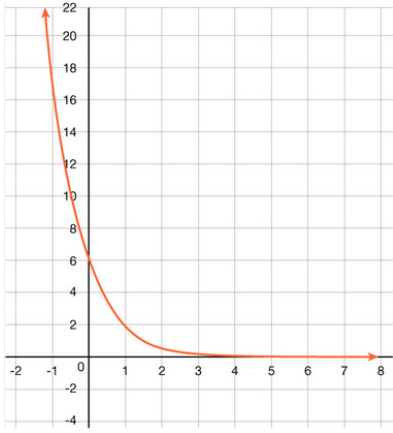
## Unit 7 STAAR Review

Question	TEKS	Exam/ Question#	Unit																		
<p>1 Given <math>g(x) = x^2 - 6x - 16</math>, which statement is true?</p> <p><b>A</b> The zeros are <math>x = -8</math> and <math>x = 2</math> because the factors of <math>g</math> are <math>(x + 8)</math> and <math>(x - 2)</math>.</p> <p><b>B</b> The zeros are <math>x = -8</math> and <math>x = -2</math> because the factors of <math>g</math> are <math>(x + 8)</math> and <math>(x + 2)</math>.</p> <p><b>C</b> The zeros are <math>x = -2</math> and <math>x = 8</math> because the factors of <math>g</math> are <math>(x + 2)</math> and <math>(x - 8)</math>. [correct answer]</p> <p><b>D</b> The zeros are <math>x = 2</math> and <math>x = 8</math> because the factors of <math>g</math> are <math>(x - 2)</math> and <math>(x - 8)</math>.</p>	A.7(B)	2021/ Question#4	7																		
<p>2 A ball is placed in a machine that throws the ball up in the air. The table represents some points on the graph of a function that models the ball's distance from the ground with respect to the time since the ball has been thrown.</p> <table><tr><td>Time Since Thrown from Machine (seconds)</td><td>0</td><td>0.25</td><td>0.50</td><td>0.75</td><td>1.00</td><td>1.25</td><td>1.50</td><td>1.75</td></tr><tr><td>Distance from Ground (meters)</td><td>0</td><td>2.76</td><td>4.90</td><td>6.43</td><td>7.35</td><td>7.66</td><td>7.35</td><td>6.43</td></tr></table> <p>What is the range for this situation?</p> <p><b>A</b> All real numbers less than or equal to 1.25</p> <p><b>B</b> All real numbers less than or equal to 7.66</p> <p><b>C</b> All real numbers greater than or equal to 0 and less than or equal to 1.25</p> <p><b>D</b> All real numbers greater than or equal to 0</p>	Time Since Thrown from Machine (seconds)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	Distance from Ground (meters)	0	2.76	4.90	6.43	7.35	7.66	7.35	6.43	A.6(A)	2021/ Question#12	7
Time Since Thrown from Machine (seconds)	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75													
Distance from Ground (meters)	0	2.76	4.90	6.43	7.35	7.66	7.35	6.43													

	Question	TEKS	Exam/ Question#	Unit
	<p>and less than or equal to 7.66 [correct answer]</p>			
3	<p>Two characteristics of quadratic function <math>p</math> are given.</p> <ul style="list-style-type: none"> <li>• The axis of symmetry of the graph of <math>p</math> is <math>x = -3</math>.</li> <li>• Function <math>p</math> has exactly one zero.</li> </ul> <p>Based on this information, which graph could represent <math>p</math>?</p> <div data-bbox="261 787 966 1173"> <p><b>A</b></p>  <p>[correct answer]</p> </div> <div data-bbox="261 1186 673 1533"> <p><b>B</b></p>  </div>	A.7(A	2021/ Question#7	7

	Question	TEKS	Exam/ Question#	Unit
	<p><b>C</b></p>  <p><b>D</b></p> 			
4	<p>The graph of <math>f(x) = x^2</math> was translated 4.5 units to the left to create the graph of function <math>g</math>. Which function represents <math>g</math>?</p> <p><b>A</b> <math>g(x) = (x - 4.5)^2</math></p> <p><b>B</b> <math>g(x) = (x + 4.5)^2</math> [correct answer]</p> <p><b>C</b> <math>g(x) = (x + 4.5)^2</math></p> <p><b>D</b> <math>g(x) = x^2 + 4.5</math></p>	A.7(C)	2021/ Question#52	7

	Question	TEKS	Exam/ Question#	Unit
5	<p>The graph of a quadratic function is shown on the grid.</p>  <p>Which function is best represented by this graph?</p> <p><b>A</b> <math>f(x) = -\frac{1}{2}x^2 + 16</math></p> <p><b>B</b> <math>f(x) = -x^2 + 16</math></p> <p><b>C</b> <math>f(x) = -x^2 + 8</math></p> <p><b>D</b> <math>f(x) = -\frac{1}{2}x^2 + 8</math> [correct answer]</p>	A.6(C)	2021/ Question#16	7
6	<p>Which expression is equivalent to <math>\frac{36x^4y^5}{(3xy)^2}</math> for all values of <math>x</math> and <math>y</math> where the expression is defined?</p> <p><b>A</b> <math>12x^3y^4</math></p> <p><b>B</b> <math>27x^2y^3</math></p> <p><b>C</b> <math>4x^2y^3</math> [correct answer]</p> <p><b>D</b> <math>6x^3y^4</math></p>	A.11(B)	2021/ Question#26	6

	Question	TEKS	Exam/ Question#	Unit
7	<p>Which expression is equivalent to <math>16w^2 + 24w + 9</math>?</p> <p><b>A</b> <math>(4w + 3)^2</math> [correct answer]</p> <p><b>B</b> <math>(4w - 3)^2</math></p> <p><b>C</b> <math>(8w + 3)^2</math></p> <p><b>D</b> <math>(8w - 3)^2</math></p>	A.10(E)	2021/ Question#32	6
8	<p>An exponential function is graphed on the grid.</p>  <p>Which function is best represented by the graph?</p> <p><b>A</b> <math>g(x) = 6(\frac{1}{3})^x</math> [correct answer]</p> <p><b>B</b> <math>g(x) = 6(3)^x</math></p> <p><b>C</b> <math>g(x) = 6 - (\frac{1}{3})^x</math></p> <p><b>D</b> <math>g(x) = 6 - (3)^x</math></p>	A.3(B) A.9(C)	2019/ Question#9	5

	Question	TEKS	Exam/ Question#	Unit																																								
9	<p>Which table shows <math>y</math> as a function of <math>x</math>?</p> <p><b>A</b></p> <table border="1"> <tr> <td><math>x</math></td><td>-13</td><td>-13</td><td>-13</td><td>-13</td></tr> <tr> <td><math>y</math></td><td>-2</td><td>0</td><td>5</td><td>7</td></tr> </table> <p><b>B</b></p> <table border="1"> <tr> <td><math>x</math></td><td>-6</td><td>-1</td><td>-1</td><td>10</td></tr> <tr> <td><math>y</math></td><td>3</td><td>-1</td><td>5</td><td>-9</td></tr> </table> <p><b>C</b></p> <table border="1"> <tr> <td><math>x</math></td><td>1</td><td>3</td><td>7</td><td>12</td></tr> <tr> <td><math>y</math></td><td>4</td><td>4</td><td>4</td><td>4</td></tr> </table> <p>[correct answer]</p> <p><b>D</b></p> <table border="1"> <tr> <td><math>x</math></td><td>-9</td><td>-2</td><td>0</td><td>0</td></tr> <tr> <td><math>y</math></td><td>-7</td><td>-5</td><td>0</td><td>6</td></tr> </table>	$x$	-13	-13	-13	-13	$y$	-2	0	5	7	$x$	-6	-1	-1	10	$y$	3	-1	5	-9	$x$	1	3	7	12	$y$	4	4	4	4	$x$	-9	-2	0	0	$y$	-7	-5	0	6	A.12(A)	2019/ Question#44	4
$x$	-13	-13	-13	-13																																								
$y$	-2	0	5	7																																								
$x$	-6	-1	-1	10																																								
$y$	3	-1	5	-9																																								
$x$	1	3	7	12																																								
$y$	4	4	4	4																																								
$x$	-9	-2	0	0																																								
$y$	-7	-5	0	6																																								

	Question	TEKS	Exam/ Question#	Unit
10	<p>A college student completed some courses worth 3 credits and some courses worth 4 credits. The student earned a total of 59 credits after completing 18 courses.</p> <p>How many courses worth 3 credits did the student complete?</p> <p><b>A</b> 5</p> <p><b>B</b> 13 [correct answer]</p> <p><b>C</b> 20</p> <p><b>D</b> 39</p>	A.6(A)	2019/ Question#25	2