

**STAAR Algebra 1 Math Answer Key**

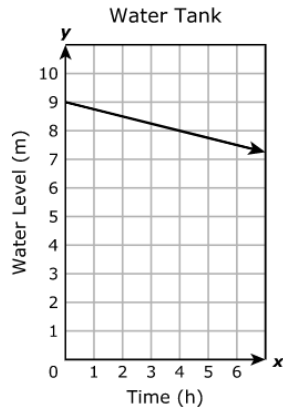
<b>Item Position</b>	<b>Item Type</b>	<b>TEKS Alignment</b>	<b>Maximum Number of Points</b>	<b>Correct Answer(s)</b>	<b>Reporting Category</b>	<b>Readiness or Supporting</b>
1	Multiple Choice	A1.3.2.C	1	A	3	Readiness
2	Drag and Drop	A1.2.3.B	2	Decreases, 0.25 See Appendix 1.1	2	Readiness
3	Multiple Choice	A1.4.6.C	1	A	4	Supporting
4	Multiple Choice	A1.3.5.A	1	D	3	Readiness
5	Multiple Choice	A1.1.10.E	1	C	1	Readiness
6	Multiple Choice	A1.2.4.A	1	B	2	Supporting
7	Inline Choice	A1.3.2.A	2	Greater than $-4$ , less than or equal to 2 See Appendix 1.2	3	Readiness
8	Multiple Choice	A1.4.7.B	1	D	4	Supporting
9	Drag and Drop	A1.5.9.D	2	y, 0 See Appendix 1.3	5	Readiness
10	Multiple Choice	A1.1.11.B	1	C	1	Readiness
11	Multiple Choice	A1.4.6.A	1	B	4	Readiness
12	Drag and Drop	A1.3.2.H	2	7, 10, $>$ , 100 See Appendix 1.4	3	Supporting
13	Multiple Choice	A1.4.8.B	1	A	4	Supporting
14	Multiple Choice	A1.5.9.C	1	A	5	Readiness
15	Multiple Choice	A1.2.3.E	1	D	2	Supporting
16	Multiple Choice	A1.1.10.C	1	B	1	Supporting
17	Multiple Choice	A1.2.3.D	1	A	2	Readiness
18	Multiple Choice	A1.5.9.A	1	B	5	Supporting
19	Multiple Choice	A1.4.7.A	1	D	4	Readiness

20	Multiple Choice	A1.1.11.A	1	B	1	Supporting
21	Multiple Choice	A1.3.2.G	1	A	3	Supporting
22	Multiple Choice	A1.2.3.C	1	C	2	Readiness
23	Multiple Choice	A1.3.5.C	1	B	3	Readiness
24	Multiple Select	A1.1.10.E	2	A, E See Appendix 1.5	1	Readiness
25	Multiple Choice	A1.4.6.B	1	D	4	Supporting
26	Multiple Choice	A1.2.4.C	1	B	2	Supporting
27	Multiple Choice	A1.5.9.B	1	D	5	Supporting
28	Multiple Choice	A1.2.3.A	1	C	2	Supporting
29	Drag and Drop	A1.3.5.A	1	B	3	Readiness
30	Multiple Choice	A1.2.3.G	1	D	2	Supporting
31	Multiple Choice	A1.1.12.C	1	A	1	Supporting
32	Multiple Choice	A1.4.6.A	1	B	4	Readiness
33	Multiple Choice	A1.1.10.B	1	C	1	Supporting
34	Multiple Choice	A1.3.2.C	1	D	3	Readiness
35	Drag and Drop	A1.1.11.B	2	4, 4 See Appendix 1.6	1	Readiness
36	Multiple Choice	A1.5.9.C	1	C	5	Readiness
37	Multiple Choice	A1.3.2.I	1	D	3	Readiness

38	Drag and Drop	A1.4.7.C	2	3, -9 See Appendix 1.7	4	Readiness
39	Multiple Choice	A1.1.10.D	1	C	1	Supporting
40	Multiple Choice	A1.3.5.C	1	D	3	Readiness
41	Multiple Choice	A1.4.8.A	1	A	4	Readiness
42	Multiple Choice	A1.5.9.D	1	A	5	Readiness
43	Graphing	A1.2.3.D	2	Solid line going through (0, 2) and (1, 1); shading is the area that does not include the point (0, 0)  See Appendix 1.8	2	Readiness
44	Multiple Choice	A1.3.2.E	1	C	3	Supporting
45	Multiple Choice	A1.1.12.E	1	A	1	Supporting
46	Multiple Choice	A1.3.2.A	1	B	3	Readiness
47	Multiple Choice	A1.1.12.B	1	B	1	Supporting
48	Multiple Choice	A1.2.3.C	1	C	2	Readiness
49	Multiple Select	A1.4.7.A	2	C, D See Appendix 1.9	4	Readiness
50	Multiple Choice	A1.2.3.B	1	C	2	Readiness

**STAAR Algebra 1 Math  
Appendix**

The water level in a tank is changing at a constant rate. The graph shows the relationship between time in hours,  $x$ , and the water level in meters,  $y$ .



Complete the statement that describes the rate of change of the water level with respect to time.

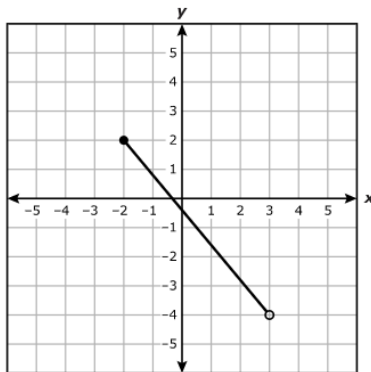
Move the correct answer to each box. Not all answers will be used.

decreases increases 0.25 1 4

The water level  at a rate of  m/h.

## 1.2

A part of a linear function is shown on the grid.



What is the range of the part of the linear function shown?

Choose the correct answer from each drop-down menu to complete the sentence.

The range is the set of all real numbers  and .

## 1.3

What is the equation of the asymptote of the graph of the function  $y = 16(0.75)^x$ ?

Move the correct answer to each box. Not all answers will be used.

x y 0 0.75 12 16

y = 0

#### 1.4

A customer is ordering hats and T-shirts from an online store. Each hat costs \$7, and each T-shirt costs \$10. The customer receives free shipping if the amount of the order is over \$100.

Write an inequality that represents all possible combinations of hats,  $x$ , and T-shirts,  $y$ , in an order that qualifies for free shipping.

Move the correct answer to each box. Not all answers will be used.

100 7 10 17 < > =

7 x + 10 y > 100

### 1.5

Which expressions are equivalent to  $12x^2 - 48x + 48$ ?

Select **TWO** correct answers.

$12(x-2)^2$

$-12(x^2 + 4x + 4)$

$12(x-4)(x-1)$

$-12(x+2)^2$

$12(x^2 - 4x + 4)$

### 1.6

The expression  $x^6y^3 \div \left(\frac{x^2}{y}\right)$  can be written as a product of two exponential terms with bases  $x$  and  $y$  for all values of  $x$  and  $y$  where the expression is defined. Choose the correct value of the exponent for each term.

Move the correct answer to each box. Each answer may be used more than once. Not all answers will be used.

-3	2	3	4	8
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$x^{\boxed{4}} y^{\boxed{4}}$

### 1.7

The function  $f(x) = x^2$  was transformed to create the function  $g(x) = f(x-3) - 9$ . What are the coordinates of the vertex of the graph of  $g$ ?

Move the correct answer to each box. Not all answers will be used.

-9	-3	0	3	9
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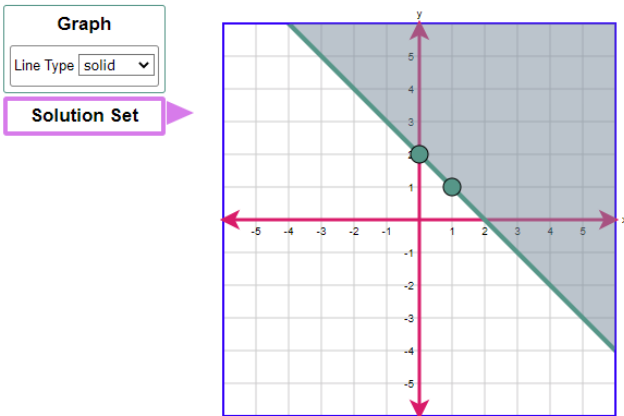
(  $\boxed{3}$  ,  $\boxed{-9}$  )

## 1.8

What is the solution set for the linear inequality  $y \geq -x + 2$ ?

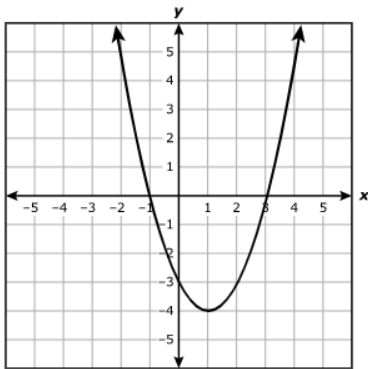
Graph the solution set of the linear inequality in the coordinate plane.

- First, select the Graph button to graph the line and choose the line style. To graph a line, select two points in the coordinate plane. A line will automatically connect the points.
- Then, select the Solution Set button and select the desired region to be shaded.



## 1.9

The graph of a quadratic function is shown.



Which values best represent the zeros of the function?

Select **TWO** correct answers.

$x = 1$

$x = -4$

$x = -1$

$x = 3$

$x = 0$

$x = -3$