

# STAAR Spring 2024 Grade 8 Math Answer Key

Item Position	Item Type	TEKS Alignment	Maximum Number of Points	Correct Answer(s)	Reporting Category	Readiness or Supporting
1	Multiple Choice	8.3.7.A	1	A	3	Readiness
2	Multiple Choice	8.1.2.D	1	B	1	Readiness
3	Multiple Choice	8.2.5.G	1	A	2	Readiness
4	Multiple Choice	8.4.5.D	1	C	4	Readiness
5	Drag and Drop	8.2.5.I	2	$\frac{3}{4}$ , 2 See Appendix 1.1	2	Readiness
6	Multiple Choice	8.3.3.A	1	D	3	Supporting
7	Multiple Choice	8.4.12.C	1	D	4	Supporting
8	Multiple Choice	8.3.7.B	1	B	3	Readiness
9	Multiple Choice	8.2.8.A	1	C	2	Supporting
10	Drag and Drop	8.3.3.C	2	3x, 3y See Appendix 1.2	3	Readiness
11	Multiple Choice	8.2.4.B	1	B	2	Readiness
12	Multiple Choice	8.3.6.A	1	C	3	Supporting
13	Multiple Choice	8.2.5.F	1	B	2	Supporting
14	Drag and Drop	8.3.8.D	2	120°, 60°, 60° See Appendix 1.3	3	Supporting
15	Multiple Choice	8.2.4.C	1	C	2	Readiness
16	Multiple Choice	8.4.12.D	1	A	4	Readiness
17	Match Table Grid	8.3.10.B	2	Preserves Congruence, Preserves Congruence, Does Not	3	Supporting

				Preserve Congruence See Appendix 1.4		
18	Multiple Choice	8.2.8.C	1	A	2	Readiness
19	Multiple Choice	8.3.7.C	1	D	3	Readiness
20	Multiple Choice	8.3.10.C	1	C	3	Readiness
21	Multiple Select	8.2.5.G	2	(3, -6), (-2, 4) See Appendix 1.5	2	Readiness
22	Multiple Choice	8.3.7.D	1	A	3	Supporting
23	Multiple Choice	8.2.5.E	1	B	2	Supporting
24	Multiple Choice	8.4.12.D	1	C	4	Readiness
25	Equation	8.3.7.B	1	7,160 See Appendix 1.6	3	Readiness
26	Multiple Choice	8.2.5.H	1	B	2	Supporting
27	Multiple Choice	8.1.2.C	1	C	1	Supporting
28	Multiple Choice	8.3.3.C	1	D	3	Readiness
29	Inline Choice	8.2.4.C	2	2.5, 4 See Appendix 1.7	2	Readiness
30	Multiple Choice	8.3.7.A	1	C	3	Readiness
31	Multiple Choice	8.2.5.I	1	A	2	Readiness
32	Multiple Choice	8.4.5.C	1	D	4	Supporting
33	Drag and Drop	8.3.7.C	2	Not a right triangle, Right triangle, Right triangle See Appendix 1.8	3	Readiness
34	Multiple Choice	8.2.5.A	1	B	2	Supporting

35	Multiple Choice	8.3.10.C	1	D	3	Readiness
36	Multiple Choice	8.2.4.A	1	D	2	Supporting
37	Multiple Select	8.1.2.D	2	$\frac{23}{7}, \sqrt{10}$ See Appendix 1.9	1	Readiness
38	Multiple Choice	8.2.8.C	1	A	2	Readiness
39	Multiple Choice	8.4.5.D	1	C	4	Readiness
40	Multiple Choice	8.2.4.B	1	D	2	Readiness

# STAAR Spring 2024 GRADE 8 Math Appendix

## 1.1

The table shows several pairs of  $x$ - and  $y$ -values for a linear relationship.

$x$	$y$
-4	-1
4	5
8	8
12	11

Create an equation in slope-intercept form that can be used to model this relationship.

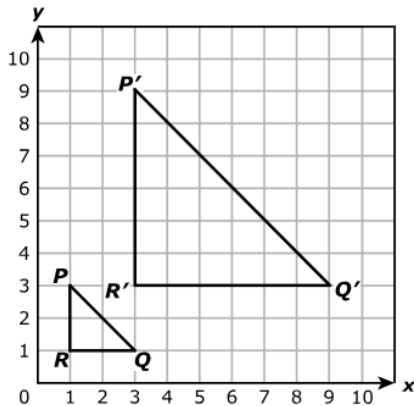
Move the correct answer to each box. Not all answers will be used.

-2	-1	$-\frac{3}{4}$	$\frac{3}{4}$	$\frac{4}{3}$	2	8
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$$y = \frac{3}{4}x + 2$$

## 1.2

Triangle  $PQR$  is dilated with the origin as the center of dilation to create triangle  $P'Q'R'$ .



Complete the rule to represent the dilation from triangle  $PQR$  to triangle  $P'Q'R'$ .

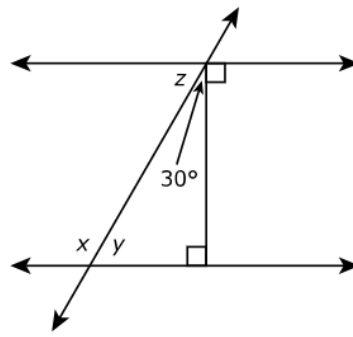
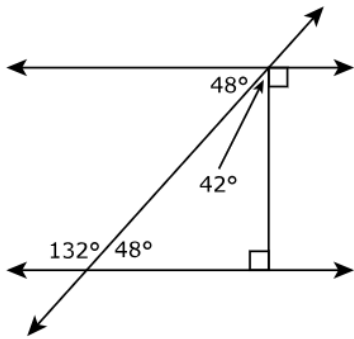
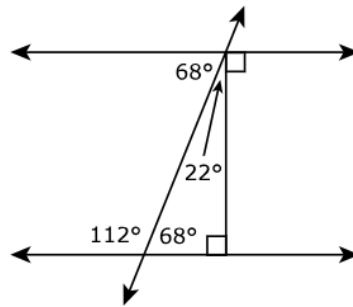
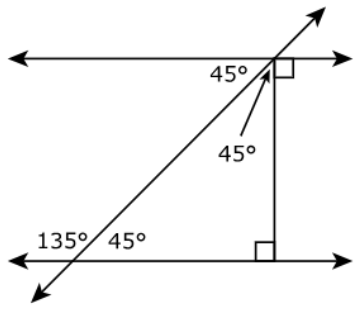
Move the correct answer to each box. Not all answers will be used.

$2x$	$3x$	$6x$	$2y$	$3y$	$6y$
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$$(x, y) \rightarrow (3x, 3y)$$

### 1.3

The figures shown each have a set of parallel lines intersected by a transversal.



Based on the figures, what are the measures  $x$ ,  $y$ , and  $z$  in degrees?

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

30° 50° 60° 100° 120° 150°

#### Angle Measures

Unknown	Value
$x$	120°
$y$	60°
$z$	60°

## 1.4

A figure on the coordinate plane is transformed to create a new figure.

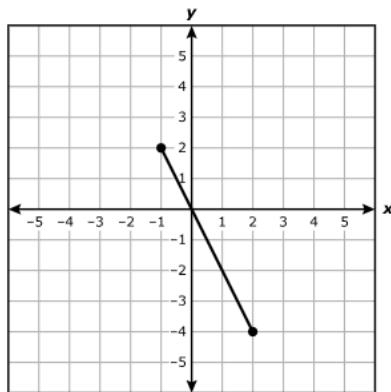
Determine whether each transformation preserves or does not preserve congruence.

Select the correct answer in each row.

	Preserves Congruence	Does Not Preserve Congruence
A reflection across the $y$ -axis	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A rotation of $180^\circ$ counterclockwise with the origin as the center of rotation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
A dilation by a scale factor of 0.5 with the origin as the center of dilation	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 1.5

A segment is graphed on the grid.



Points will be plotted on the grid with the segment to show  $y$  as a function of  $x$ . Which ordered pairs can be added to the grid to show  $y$  as a function of  $x$ ?

Select **TWO** correct answers.

$(3, -6)$

$(-1, 6)$

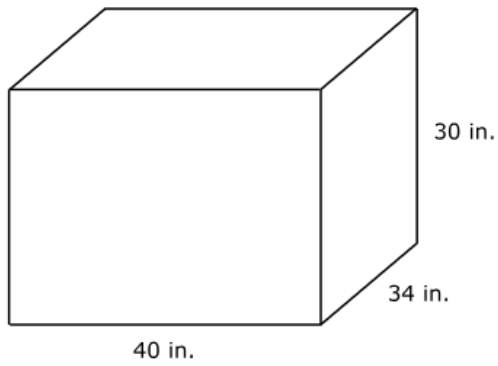
$(1, -6)$

$(0, 2)$

$(-2, 4)$

## 1.6

A diagram of a toy box is shown. Its measurements are given in inches.



What is the total surface area of the toy box in square inches?

Enter your answer in the space provided.

← → ↶ ↷ ✖

1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

## 1.7

The table shows a linear relationship between the variables  $x$  and  $y$ .

$x$	$y$
5	16.5
7	21.5
11	31.5

What are the slope and  $y$ -intercept of the linear relationship?

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

The slope of the linear relationship is , and the  $y$ -intercept is .

## 1.8

Determine whether the triangle with each set of side lengths is a right triangle or not a right triangle.

Move the correct answer to each box in the table. Each answer may be used more than once.

Right triangle

Not a right triangle

Triangle Classification

Lengths (centimeters)	Type of Triangle
6, 8, 9	Not a right triangle
10, 24, 26	Right triangle
24, 45, 51	Right triangle

## 1.9

Which numbers have a value greater than  $\pi$ ?

Select **TWO** correct answers.

$\frac{8}{3}$

3.14

$\frac{23}{7}$

$\sqrt{9}$

$\sqrt{10}$