

## Practice Test – Grade 8 Math Answer Key

Item Position	Item Type	TEKS Alignment	Maximum Number of Points	Correct Answer(s)
1	Multiple Choice	8.3.10.D	1	C
2	Equation	8.2.8.C	1	0.2 See Appendix 1.1
3	Multiple Choice	8.4.5.D	1	B
4	Multiple Choice	8.2.5.I	1	D
5	Multiple Choice	8.3.7.C	1	A
6	Multiple Choice	8.2.4.B	1	C
7	Equation	8.3.7.A	1	40 See Appendix 1.2
8	Multiple Choice	8.2.5.G	1	B
9	Multiple Choice	8.3.7.B	1	D
10	Multiple Choice	8.4.12.G	1	A
11	Table Match	8.2.5.H	2	Non-proportional, Proportional, Proportional, Non- proportional See Appendix 1.3
12	Multiple Choice	8.3.3.C	1	B
13	Multiple Choice	8.2.4.C	1	D
14	Multiple Choice	8.1.2.D	1	A
15	Multiple Select	8.3.10.C	2	C, D See Appendix 1.4
16	Multiple Choice	8.2.9.A	1	C
17	Multiple Choice	8.4.12.D	1	A
18	Multiple Choice	8.2.5.F	1	D
19	Hot Text	8.3.8.D	2	60, 180 See Appendix 1.5
20	Multiple Choice	8.2.5.A	1	B
21	Multiple Choice	8.4.5.D	1	D
22	Multiple Choice	8.2.5.G	1	A
23	Inline Choice	8.3.10.A	2	congruent, is See Appendix 1.6
24	Multiple Choice	8.1.2.C	1	B
25	Multiple Choice	8.2.4.C	1	C
26	Multiple Choice	8.3.6.C	1	A
27	Multiple Select	8.1.2.D	2	A, E See Appendix 1.7
28	Multiple Choice	8.3.7.B	1	C
29	Multiple Choice	8.2.8.C	1	B
30	Multiple Choice	8.3.10.C	1	D

Item Position	Item Type	TEKS Alignment	Maximum Number of Points	Correct Answer(s)
31	Hot Text	8.2.5.I	2	$7/3, -2/3$ See Appendix 1.8
32	Multiple Choice	8.3.7.C	1	C
33	Multiple Choice	8.4.12.D	1	C
34	Multiple Choice	8.2.5.B	1	A
35	Inline Choice	8.4.11.A	2	decreases, weak, negative See Appendix 1.9
36	Multiple Choice	8.3.3.C	1	A
37	Multiple Choice	8.2.8.B	1	B
38	Multiple Choice	8.3.7.A	1	B
39	Hotspot	8.2.4.B	2	(8, 5), (16, 10) See Appendix 1.10
40	Multiple Choice	8.3.3.A	1	D

## Practice Test – Grade 8 Math

### Appendix

#### 1.1

What value of  $x$  makes this equation true?

$$0.17x - 0.03 = 0.03x - 0.002$$

Enter your answer in the box provided.

←
→
↶
↷
✖

1	2	3
4	5	6
7	8	9
	0	
.	-	calc

#### 1.2

A poster storage tube in the shape of a cylinder has a diameter of 3.5 inches and a volume of  $122.5\pi$  cubic inches.

What is the height of the poster storage tube in inches?

Enter your answer in the box provided.

←
→
↶
↷
✖

1	2	3
4	5	6
7	8	9
	0	
.	-	calc

### 1.3

Determine whether each situation represents a proportional or a non-proportional relationship.

Select one answer in each row.

Situation	Proportional	Non-proportional
The total number of text messages sent if 4 were already sent and 6 messages are sent per day	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The number of characters in a text message if each word contains 6 characters	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The number of minutes it takes to enter a text message at 50 characters per minute	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The time it takes to send a text message if it takes 30 seconds to open the app and the sender enters 1 character per second	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 1.4

A circle with center  $R(-4, -4)$  on a coordinate plane is transformed so that its image forms a circle with center  $R'(-4, 4)$ .

Which rules describe transformations that result in a circle with center  $R'$  ?

Select **TWO** correct answers.

$(x, y) \rightarrow (x, y + 4)$

$(x, y) \rightarrow (-x, y)$

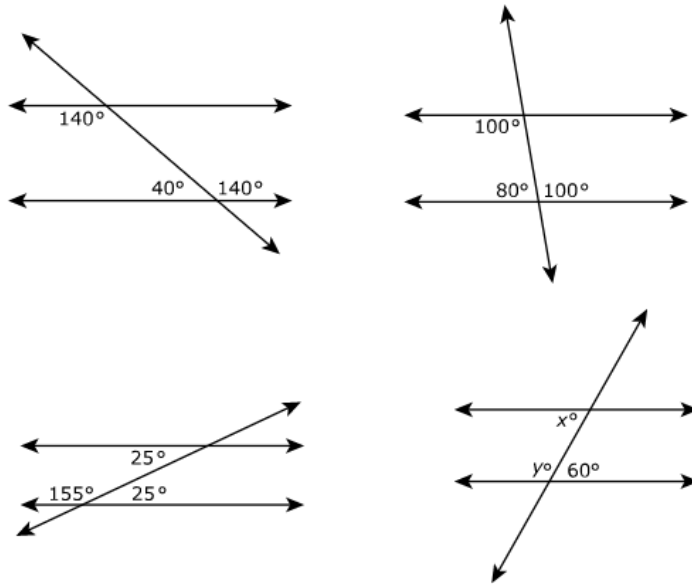
$(x, y) \rightarrow (x, y + 8)$

$(x, y) \rightarrow (x, -y)$

$(x, y) \rightarrow (-y, x)$

## 1.5

Each of these four diagrams shows a pair of parallel lines intersected by a transversal that forms the angles shown.



Complete the equations to make them true.

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

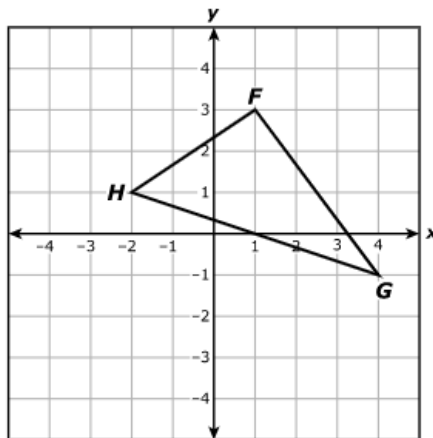
60 90 120 180

$x =$

$x + y =$

## 1.6

Triangle  $FGH$  is shown on the coordinate plane.



Triangle  $FGH$  is rotated  $90^\circ$  clockwise to create triangle  $F'G'H'$ .

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

Triangle  $F'G'H'$  is  to triangle  $FGH$ .

The orientation of the vertices of triangle  $F'G'H'$  is  the same as the orientation of the vertices of triangle  $FGH$ .

## 1.7

A pentagon has side lengths in units of  $\sqrt{325}$ ,  $18\frac{3}{5}$ , 17.99,  $18\frac{5}{12}$ , and  $\sqrt{290}$ .

Which statements about the side lengths of the pentagon are true?

Select **TWO** correct answers.

The shortest side of the pentagon has a length of  $\sqrt{290}$  units.

The longest side of the pentagon has a length of  $18\frac{5}{12}$  units.

$\sqrt{325} > 18\frac{3}{5}$

$17.99 < \sqrt{290}$

$18\frac{3}{5} > 18\frac{5}{12}$

## 1.8

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

$x$	$y$
-4	-10
-1	-3
2	4
5	11

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

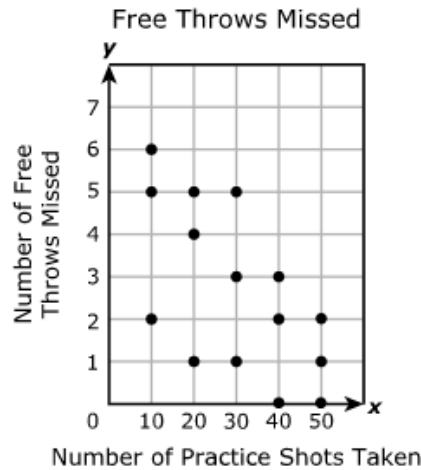
Move the correct answer to each box. Not all answers will be used.

$-5\frac{1}{3}$     $-2\frac{4}{7}$     $-\frac{2}{3}$     $\frac{3}{7}$     $\frac{2}{3}$     $\frac{7}{3}$

$$y = \boxed{\frac{7}{3}}x + \boxed{-\frac{2}{3}}$$

### 1.9

The scatterplot shows the number of practice shots a basketball team took during each practice and the number of free throws the team missed in its next game.



Complete the sentences to describe the trend in the data.

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

The data show that as the number of practice shots taken increases, the number of free throws missed

.

This trend has a   linear association.

### 1.10

A student took 32 minutes to complete a 20-question history assignment. Choose two points that lie on the line with the slope that best represents the number of questions completed per minute.

Select **TWO** correct answers.

