Name_____ Session 1 2 3 (Circle one) Date_____

DD5

1.

Which of the following sets of numbers represents the side lengths in units of a right triangle?

A 5, 3.2, 4.1

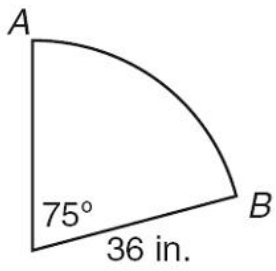
B 3.6, 6, 4.8

C 4.5, 8, 6.7

D 8.5, 5.2, 10

2.

The diagram below represents a sector of a circle.



Which of the following is closest to the length of $\overset{\frown}{AB}$ if the central angle is 75° and the radius of the circle is 36 inches?

A 23.6 in.

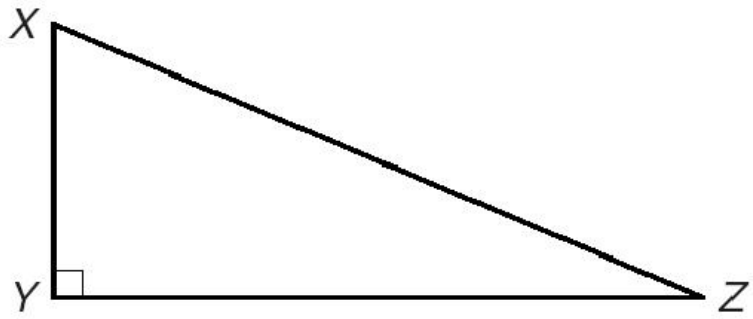
B 47.1 in.

C 179.1 in.

D 89.5 in.

3.

If $XY = 8$ feet and $XZ = 17$ feet, what is the area of ΔXYZ?



F 15 ft^2

G 30 ft^2

H 60 ft^2

J 120 ft^2

4.

A restaurant sold a total of 418 large and small hamburgers during one day. Total hamburger sales were \$1077. Large hamburgers sold for \$3, and small hamburgers sold for \$1.50. Which system of linear equations can be used to find l, the number of large hamburgers sold, and s, the number of small hamburgers sold?

A $l + s = 1077$
$3l + 1.50s = 418$

B $l + s = 418$
$3l + 1.50s = 1077$

C $1.50l + 3s = 418$
$l + s = 1077$

D $l + s = 418$
$1.50l + 3s = 1077$

5.

If the graph of $y = 19x^2 + 31$ is translated up 15 units, which of the following equations will best describe the resulting graph?

F $y = 34x^2 + 31$

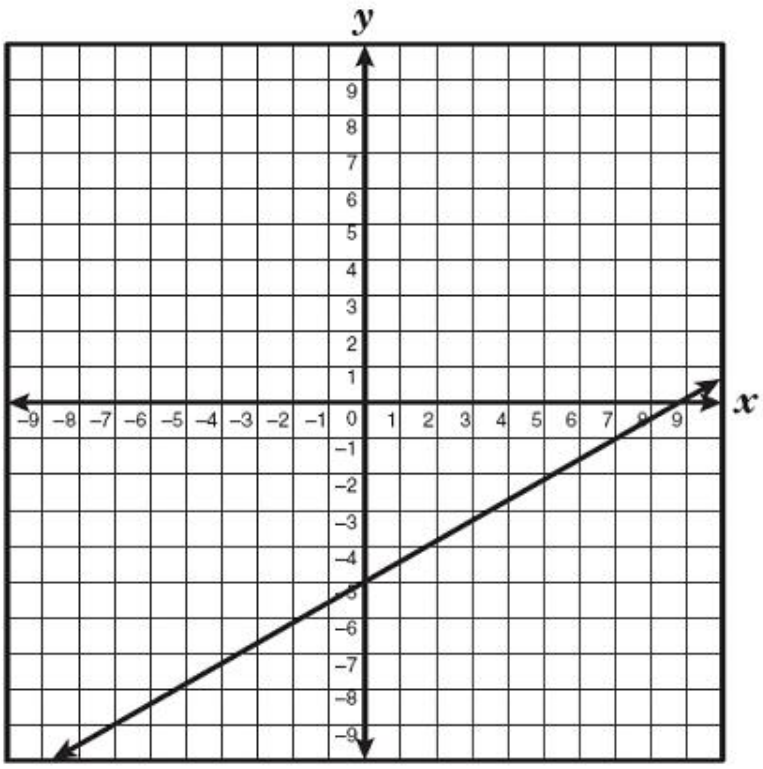
G $y = 34x^2 + 46$

H $y = 19x^2 + 46$

J $y = 19x^2 + 16$

6.

Which equation is the parent function of the graph shown below?



F $y = |x|$

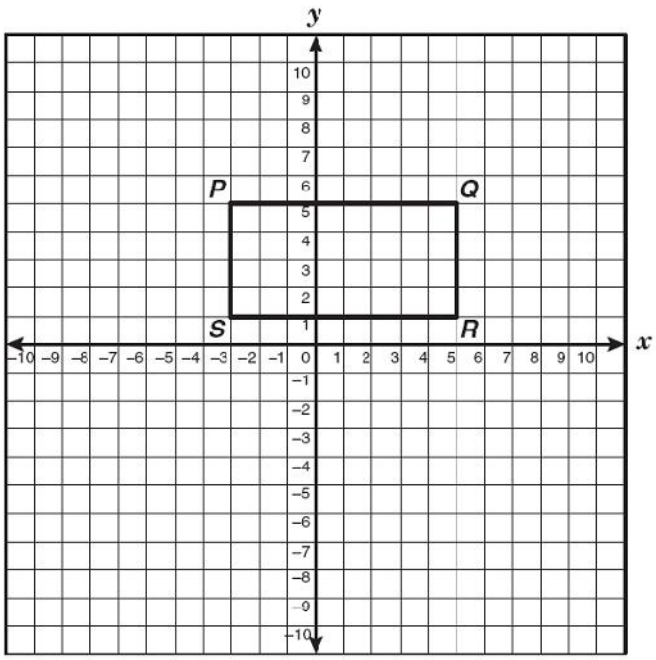
G $y = \sqrt{x}$

H $y = x^2$

J $y = x$

7.

Rectangle $PQRS$ is shown on the grid below.



Which equation best represents a line that is parallel to $\overline{PR}$?

A $y = 2x - 5$

B $y = -2x + 4$

C $y = \frac{1}{2}x - 2$

D $y = -\frac{1}{2}x + 7$

8.

Bucket, Inc. manufactures soda cans that have a diameter of 6 inches and holds a volume of 226 cubic inches. If the diameter stays the same and the height is doubled, what will happen to the can's volume?

F. Volume remains the same.

G. Volume will also double.

H. Volume will triple.

J. Volume will quadruple.