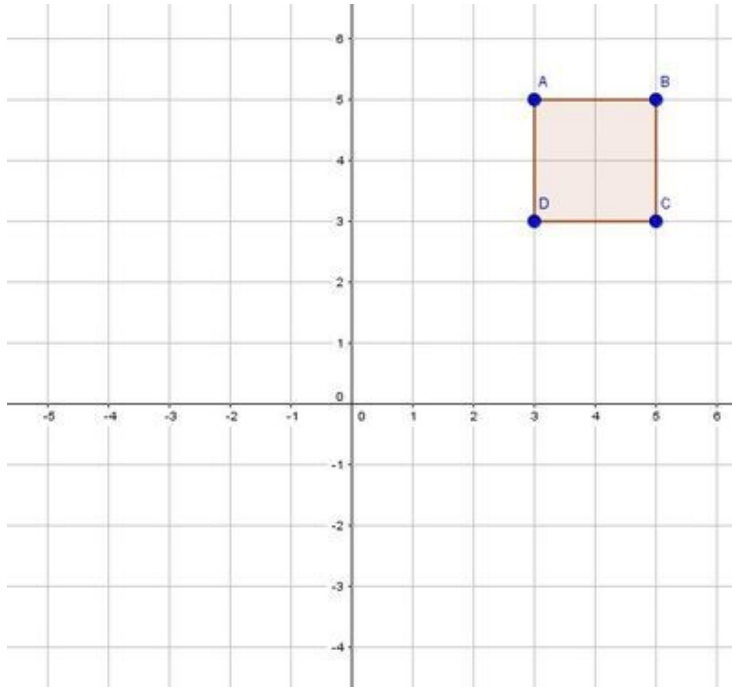


Pre-AP Geometry Unit 3 - Measurement in Congruent and Similar Figures

Question 1

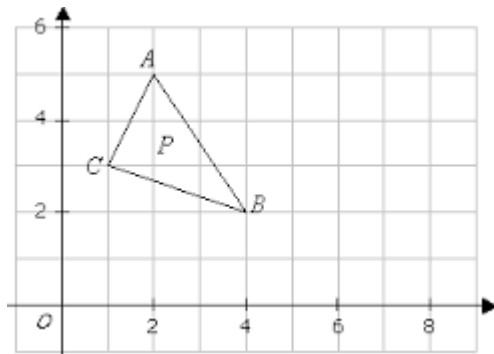
If you were to rotate $ABCD$ 180° about the origin, what would the coordinate of A' be?



- A. $(-5, 5)$
- B. $(-3, -5)$
- C. $(-5, 3)$
- D. $(-3, 3)$

Question 2

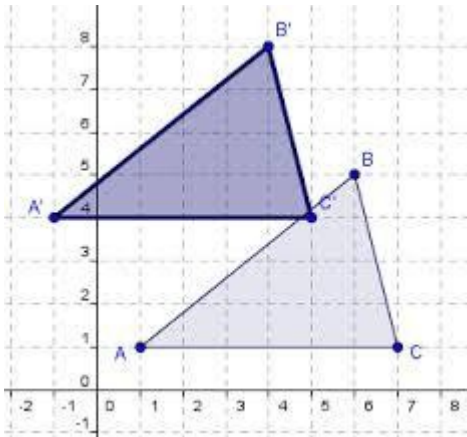
Triangle ABC is going to be translated. Where would A' position be at, if the translation was be $(x, y) \rightarrow (x + 3, y - 2)$?



- A. (-1,3)
- B. (5,3)
- C. (5,8)
- D. (3,5)

Question 3

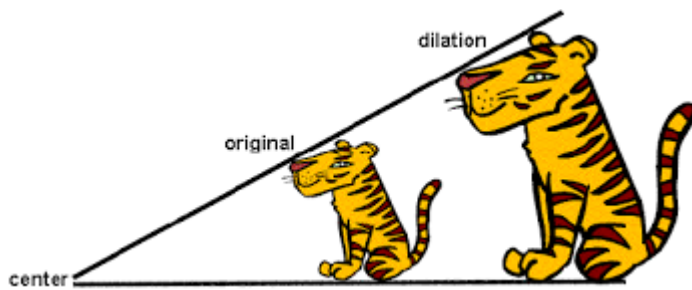
Which rule would result in a translation of 2 units left and 3 units up?



- A. $(x, y) \rightarrow (2x, 3y)$
- B. $(x, y) \rightarrow (x - 2, y + 3)$
- C. $(x, y) \rightarrow (-x, -y)$
- D. $(x, y) \rightarrow (x + 2, y - 3)$

Question 4

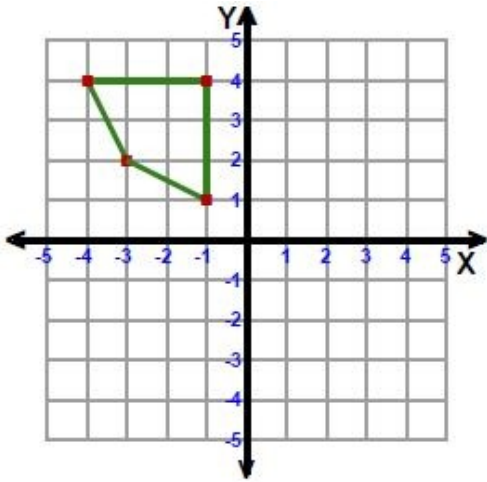
Which rule would show a dilation with a scale factor of 4?



- A. $(x, y) \rightarrow (y, x)$
- B. $(x, y) \rightarrow (x + 4, y + 4)$
- C. $(x, y) \rightarrow (x, -y)$
- D. $(x, y) \rightarrow (4x, 4y)$

Question 5

This shape is being reflected in the y -axis. The top left point $(-4, 4)$ is point B. Where would B' be located at?



- A. $(4, 4)$
- B. $(-4, 4)$
- C. $(3, 2)$
- D. $(4, 1)$

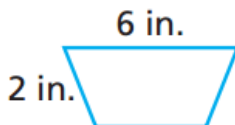
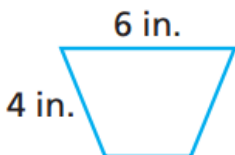
Question 6

$\triangle QRS$ contains the points: $Q(4, 2)$ $R(5, 1)$ $S(3,7)$. If the triangle is reflected across the y -axis, what will S' be?

- A. $S'(3, 7)$
- B. $S'(-3, 7)$
- C. $S'(-3, -7)$
- D. $S'(3, 7)$

Question 7

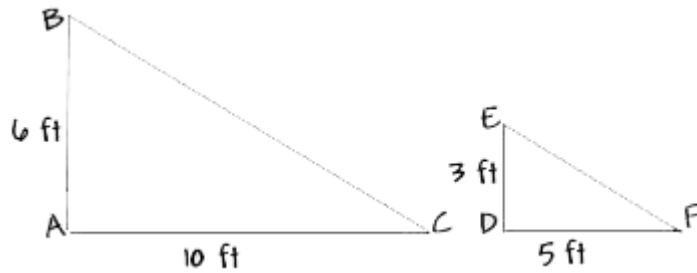
Are the following similar? Why or why not?



- A. Yes
- B. No, the corresponding angles are not equal.
- C. No, the ratios of the corresponding sides are not equal.

Question 8

What is the scale factor from the smaller triangle to the larger triangle?



- A. 2
- B. $3/2$
- C. $2/3$
- D. $1/2$

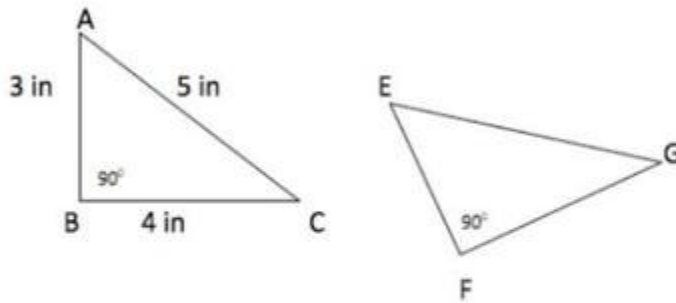
Question 9

The ratio of the corresponding sides of two similar triangles is 3:5. What is the ratio of the perimeters of these triangles?

- A. 5:3
- B. 9:25
- C. 3:5
- D. 6:10

Question 10

Triangle ABC is congruent to Triangle EFG.



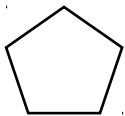
What is the length of \overline{FG} ?

- A 3 inches
- B 4 inches
- C 5 inches
- D 90 inches

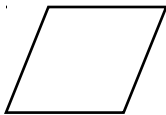
- A. 3 inches
- B. 5 inches
- C. 90 inches
- D. 4 inches

Question 11

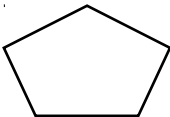
Which of the following shapes appears to be congruent to this figure?



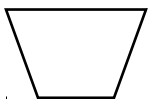
A.



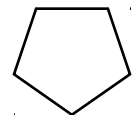
B.



C.

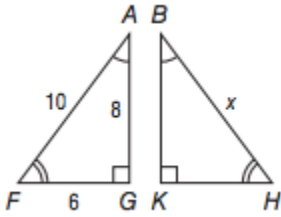


D.



Question 12

What is the length of BH?



- A. 6
- B. 8
- C. 10

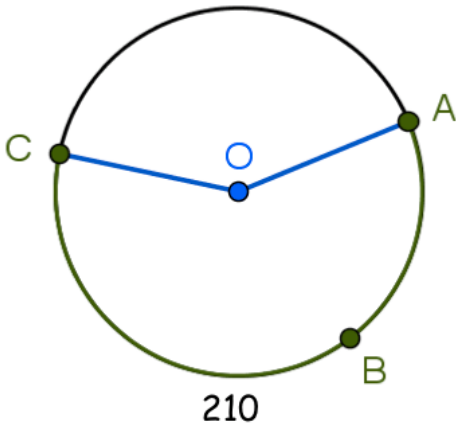
Question 13

A circle has a center at $(1, 1)$. The diameter is 6. Which of the following points is a point on the circle?

- A. $(0, -1)$
- B. $(-1, 3)$
- C. $(4, 1)$
- D. $(3, 3)$

Question 14

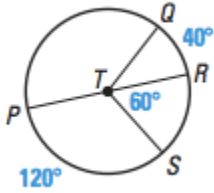
If the measure of arc $ABC = 210^\circ$, what is the measure of $\angle AOC$?



- A. 150°
- B. 100°
- C. 210°
- D. 105°

Question 15

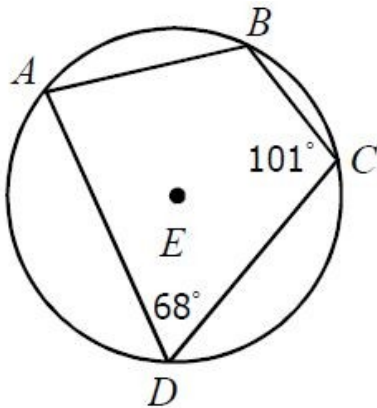
What is the measure of $\angle PTQ$?



- A. 100°
- B. 140°
- C. 180°
- D. 120°

Question 16

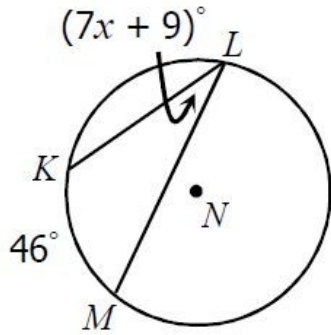
What is the measure of angle A ?



- A. 34°
- B. 180°
- C. 112°
- D. 79°

Question 17

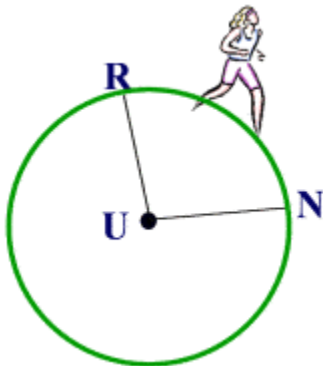
What is x ?



- A. 15
- B. 23
- C. 2
- D. 92

Question 18

Alison is jogging on a circular track that has a radius of 140 feet. She runs along the track from point R to point N, a distance of 230 feet. Find to the nearest degree, the measure of minor arc RN.



- A. 47
- B. 74
- C. 94
- D. 123

Question 19

A circle has the equation $(x+2)^2 + (y+2)^2 = 25$. Which of the following is a point on the line?

- A. (-6, 1)
- B. (-4, 2)
- C. (0, 2)
- D. (2, -2)

Answer Key

1. B
2. B
3. B
4. D
5. A
6. B
7. C
8. D
9. C
10. D
11. D
12. C
13. C
14. A
15. B
16. D
17. C
18. C
19. A