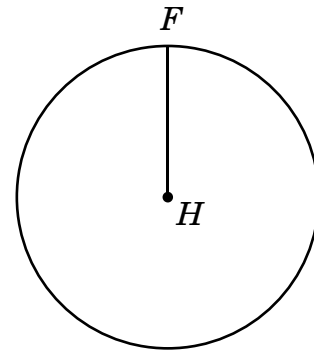


1. A line and a triangle are in the same plane. The line intersects the triangle at exactly one point, P . Which statement is true?
- A P is a vertex of the triangle.
 - B P is a midpoint of a side of the triangle.
 - C P is in the interior of the triangle.
 - D P is in the exterior of the triangle.
2. What is the maximum possible number of points of intersection between an equilateral triangle and a circle in the same plane?
- A 3
 - B 4
 - C 6
 - D 7

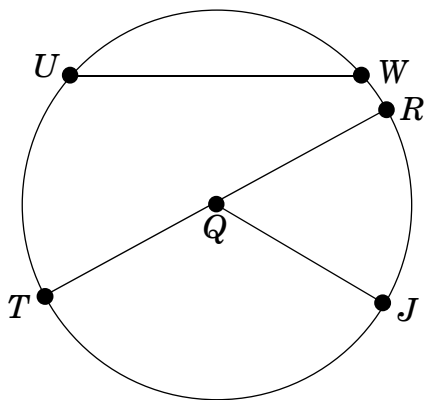
3. Radius FH is 7 cm.



What is the length of the longest chord of circle H ?

- A 7 cm
- B 9 cm
- C 14 cm
- D 21 cm

4. Which statement below must be true about circle Q ?

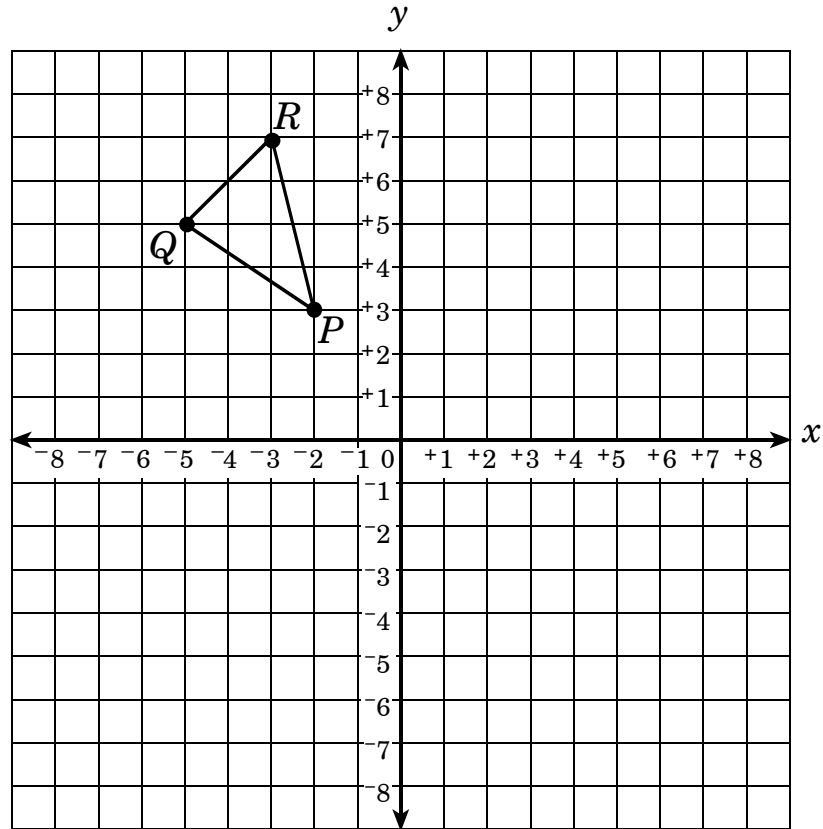


- A The distance from U to W is the same as the distance from R to T .
- B The distance from U to W is the same as the distance from Q to J .
- C The distance from R to T is half the distance from Q to R .
- D The distance from R to T is twice the distance from Q to J .

5. The radius of a circle is 45 in. Which is a true statement about the circumference (c)?

- A $c > 6,000$ in. and $c < 6,500$ in.
- B $c > 250$ in. and $c < 300$ in.
- C $c > 100$ in. and $c < 150$ in.
- D $c > 50$ in. and $c < 100$ in.

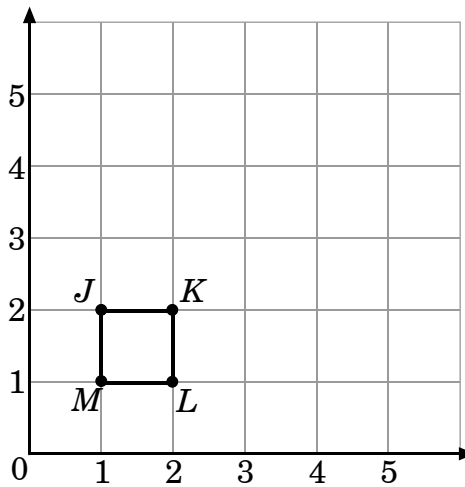
6. $\triangle PQR$ will be reflected across the y -axis.



What will be the coordinates of point R' ?

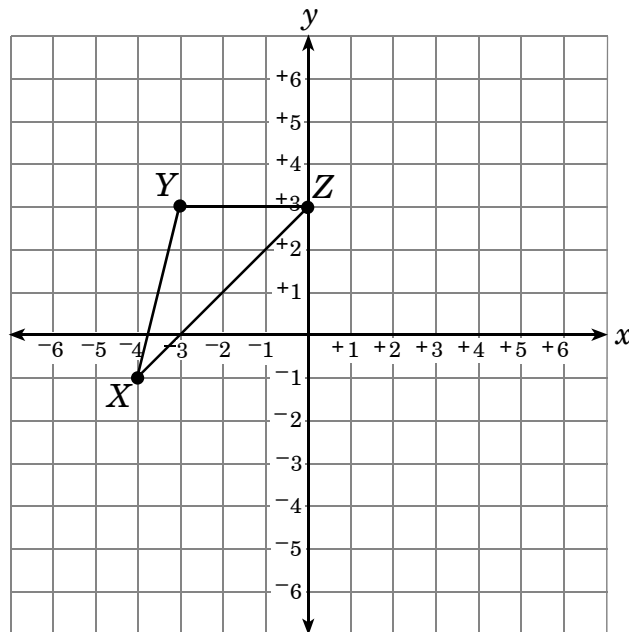
- A $(-3, -7)$
- B $(3, 7)$
- C $(3, 5)$
- D $(5, 5)$

7. Which set of coordinates results from a translation of figure $JKLM$?



- A $J'(2, 7)$, $K'(3, 8)$, $L'(4, 7)$, $M'(3, 6)$
- B $J'(2, 5)$, $K'(2, 8)$, $L'(5, 5)$, $M'(5, 8)$
- C $J'(2, 3)$, $K'(3, 2)$, $L'(4, 4)$, $M'(2, 2)$
- D $J'(1, 4)$, $K'(2, 4)$, $L'(2, 3)$, $M'(1, 3)$

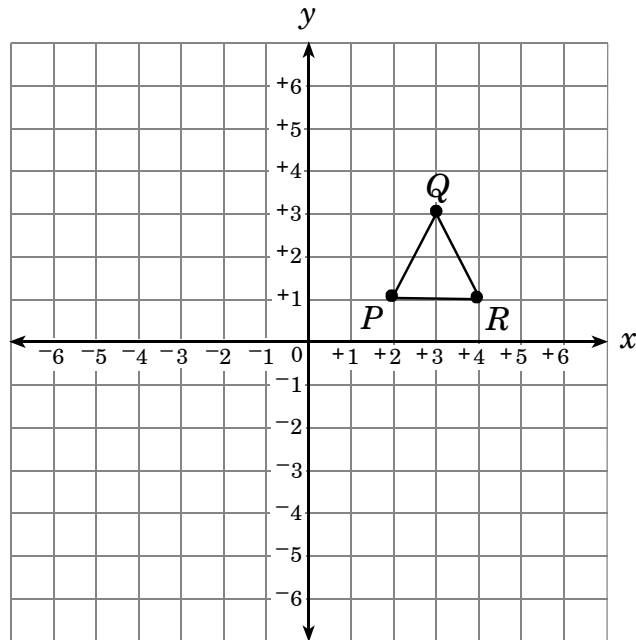
8. $\triangle XYZ$ will be translated 3 units to the right and 2 units down.



What will be the final coordinates of point Z' ?

- A (3,1)
- B (-3,1)
- C (-2,0)
- D (-2,6)

9. Triangle PQR will be rotated 90° counterclockwise about the origin.



What will be the coordinates of R' ?

- A (4, 1)
- B (0, 4)
- C (-1, -4)
- D (-1, 4)

10. What is the area of a trapezoid with vertices $(-3, -1)$, $(-1, 3)$, $(3, 3)$, and $(3, -1)$?
- A 24 square units
B 20 square units
C 16 square units
D 12 square units
11. Circle P and circle Q both have the same center point at $(2, 3)$. The point $(2, 6)$ is on circle P. The circumference of circle Q is twice the circumference of circle P. Which point listed below is on circle Q?
- A $(2, 0)$
B $(2, 3)$
C $(2, 9)$
D $(2, 12)$

End of Goal 3 Sample Items

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Answers to EOG Grade 6 Math Sample Items

Goal 3

- Objective 3.01**
Identify and describe the intersection of figures in a plane.
Thinking Skill: Analyzing **Correct Answer:** A
- Objective 3.01**
Identify and describe the intersection of figures in a plane.
Thinking Skill: Analyzing **Correct Answer:** C
- Objective 3.02**
Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.
Thinking Skill: Analyzing **Correct Answer:** C
- Objective 3.02**
Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.
Thinking Skill: Analyzing **Correct Answer:** D
- Objective 3.02**
Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.
Thinking Skill: Applying **Correct Answer:** B
- Objective 3.03**
Transform figures in the coordinate plane and describe the transformation.
Thinking Skill: Analyzing **Correct Answer:** B
- Objective 3.03**
Transform figures in the coordinate plane and describe the transformation.
Thinking Skill: Integrating **Correct Answer:** D
- Objective 3.03**
Transform figures in the coordinate plane and describe the transformation.
Thinking Skill: Analyzing **Correct Answer:** A
- Objective 3.03**
Transform figures in the coordinate plane and describe the transformation.
Thinking Skill: Analyzing **Correct Answer:** D

10. Objective 3.04

Solve problems involving geometric figures in the coordinate plane.

Thinking Skill: Integrating

Correct Answer: B

11. Objective 3.04

Solve problems involving geometric figures in the coordinate plane.

Thinking Skill: Analyzing

Correct Answer: C