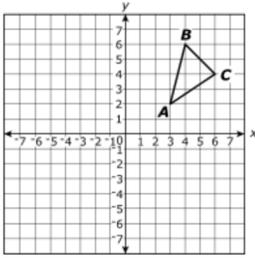


5. Triangle ABC is graphed in the xy -coordinate plane, as shown.



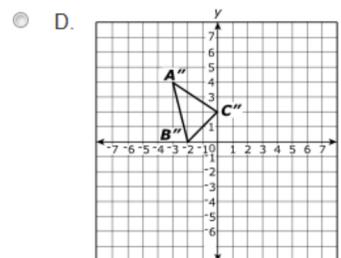
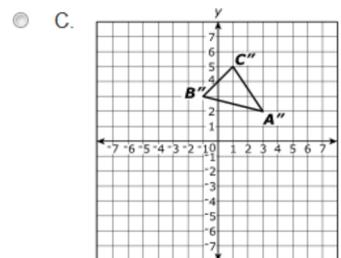
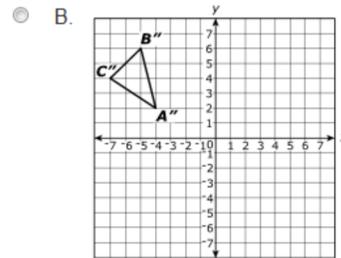
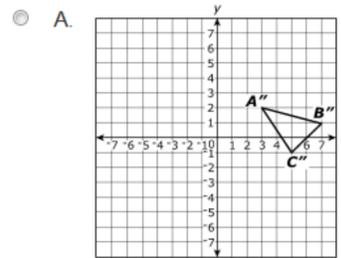
Part A

Triangle ABC is reflected across the x -axis to form triangle $A'B'C'$. What are the coordinates of C' after the reflection?

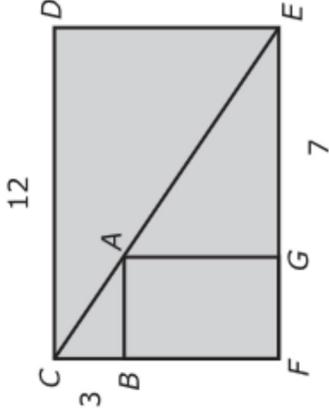
- A. $(-6, 4)$
- B. $(3, -2)$
- C. $(4, -6)$
- D. $(6, -4)$

Part B

Triangle ABC in the xy -coordinate plane will be rotated 90° counterclockwise about point A to form triangle $A''B''C''$. Which graph represents $A''B''C''$?



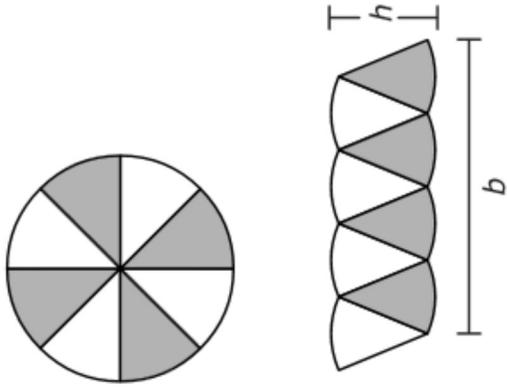
6. In the diagram, quadrilaterals $FBAG$ and $CDEF$ are rectangles.



How long is \overline{DE} rounded to the nearest tenth?

Enter your answer in the box.

7.



The figure illustrates an informal argument for the formula for the area of a circle. The circle is divided into congruent sectors, and the sectors are rearranged to form a shape that resembles a parallelogram, as shown. As the number of sectors increases, the rearranged shape more closely resembles a parallelogram with area A , given by the formula $A = bh$, where b is the base and h is the height of the parallelogram.

Select the correct value for b and h to develop the area of a circle in terms of r , the radius of the circle.

$b =$, $h =$

π	π
r	r
πr	$r \times r$
2π	$2r$
$2\pi r$	2π

8. Part A

A circle in the xy -coordinate plane has the equation $x^2 + y^2 + 6y - 4 = 0$. If the equation of the circle is written in the form $x^2 + (y + k)^2 = c$, where k and c are constants, what is the value of k ?

Enter your answer in the box.

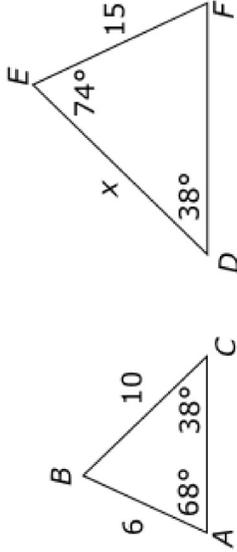
Part B

What is the radius of the circle?

- A. 2
- B. 4
- C. $\sqrt{13}$
- D. 13

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9. Given the two triangles shown, find the value of x .

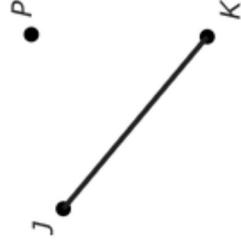


Select from the drop-down menu to correctly complete the sentence.

The value of x is Choose..

4
11
12
19
20
25

10. The figure shows line segment JK and a point P that is not collinear with points J and K .



Suppose that line segment $J'K'$ is the image of line segment JK after a dilation with scale factor 0.5 that is centered at point P . Which statement **best** describes the position of line segment $J'K'$?

- A. Line segment $J'K'$ is parallel to line segment JK .
- B. Line segment $J'K'$ is perpendicular to line segment JK .
- C. Line segment $J'K'$ intersects line segment JK at one point, but it is not perpendicular to line segment JK .
- D. Line segment $J'K'$ lies on the same line as line segment JK .