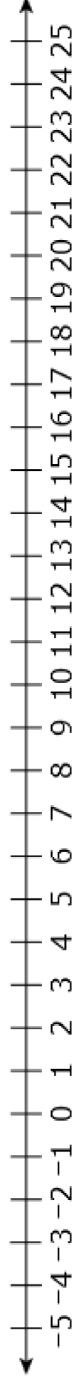


9. Point A is located at -3 , and point B is located at 19 .

Select a point on the number line between A and B such that the distance from A to the point is $\frac{3}{11}$ of the distance from A to B .

Select a place on the number line to plot the point.



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

Given distinct noncollinear points A , B , and C , the set of all points between A and C including A and C is

Choose...
a ray
a circle
an angle
a line segment

11. A queen-sized mattress is 20 inches longer than it is wide. A king-sized mattress is 16 inches wider than the queen-sized mattress but has the same length. The area of the king-sized mattress is 1,280 square inches more than that of the queen-sized mattress.

Part A

Write an equation that can be used to determine the area of the king-sized mattress. Define all variables used.

Enter your equation in the space provided.



- ▶ Math symbols
- ▶ Relations
- ▶ Geometry
- ▶ Groups
- ▶ Trigonometry
- ▶ Statistics
- ▶ Greek

Part B

Determine the dimensions of the king-sized and queen-sized mattresses. Show your work.

Enter your answer and your work in the space provided.

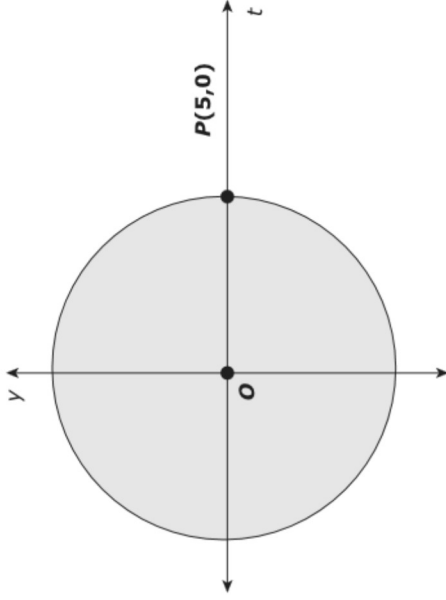


- ▶ Math symbols
- ▶ Relations
- ▶ Geometry
- ▶ Groups
- ▶ Trigonometry
- ▶ Statistics
- ▶ Greek

12. Part A

A merry-go-round is set up at a local fair. The merry-go-round moves continuously at a rate slow enough for riders to step on and off of the ride. The pink horse, P , moves along the circumference of the ride.

Hal used a coordinate grid to make a rough sketch of the merry-go-round, with the center at the origin. Initially, P is at $P(5,0)$. It takes 30 seconds for P to return to the same place.



Each unit = 1 foot

What is the rate at which the merry-go-round is turning, in feet per minute? Show your work.

Enter your answer and your work in the space provided.



▶ Math symbols

▶ Relations

▶ Geometry

▶ Groups

▶ Trigonometry

▶ Statistics

▶ Greek

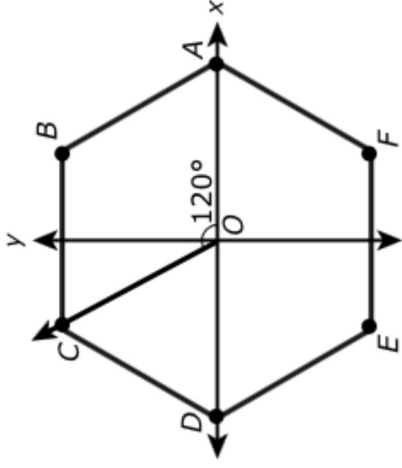
Part B

What would be the coordinates of P on Hal's sketch after 8.25 minutes?

Enter your answers in the boxes.

(,)

13. This diagram shows regular hexagon $ABCDEF$ with center at O .



Justine made these claims.

- The only lines of symmetry for regular hexagon $ABCDEF$ are the lines that contain one vertex and O .
- The only angle of rotation that shows rotational symmetry is 120° .

Explain why Justine is correct or incorrect.

Enter your explanation in the space provided.



▶ Math symbols

▶ Relations

▶ Geometry

▶ Groups

▶ Trigonometry

▶ Statistics

▶ Greek