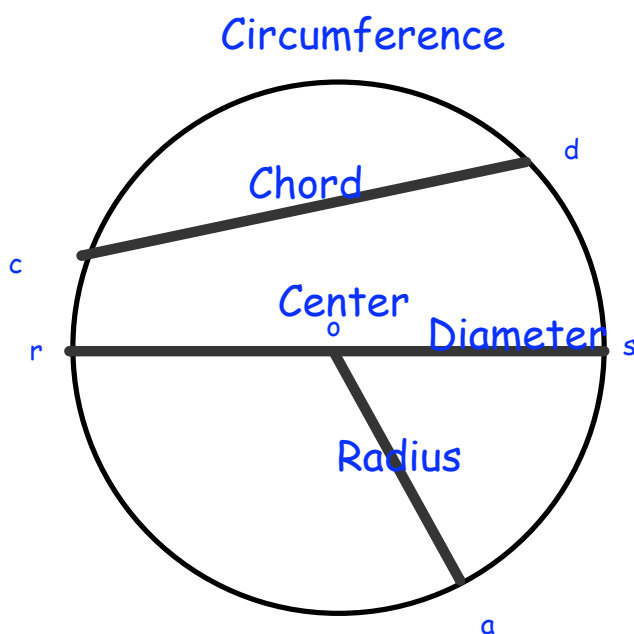


Chapter 9.4 Pi and the circle



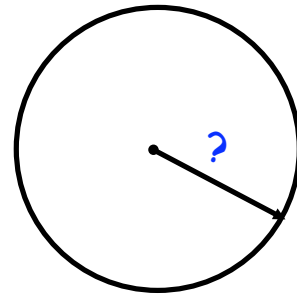
Secret formula

$$C = \pi \cdot \text{Dia}$$

Question:

If the distance around a circle is 34.7 inches. What is the radius of that circle?

$$\begin{aligned} \frac{34.7}{\pi} &= \frac{\pi \cdot D}{\pi} \\ \frac{34.7}{2\pi} &= \frac{D}{2} \\ 5.5\dots &= r \end{aligned}$$



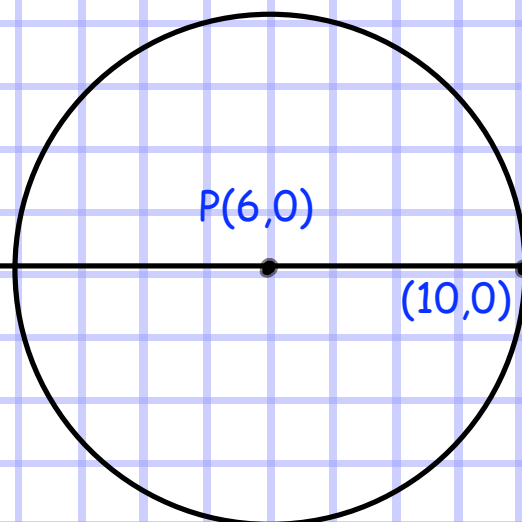
Find the circumference of  P

$$C = \pi \cdot D$$

$$C = \pi \cdot 8$$

$$C = 8\pi$$

$$C \approx 25.12 \dots \text{units}$$



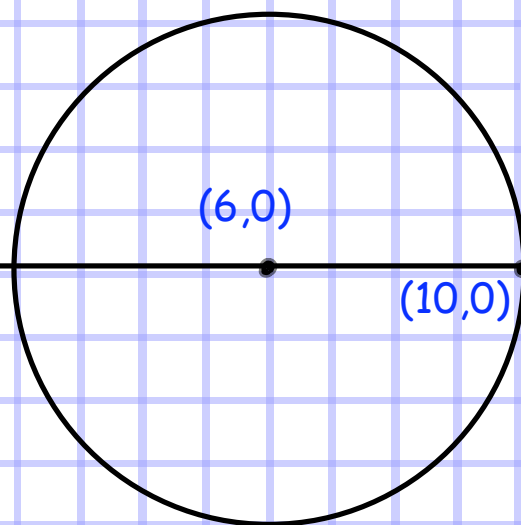
Find the area of $\odot P$

$$A = \pi r^2$$

$$A = \pi \cdot 4^2$$

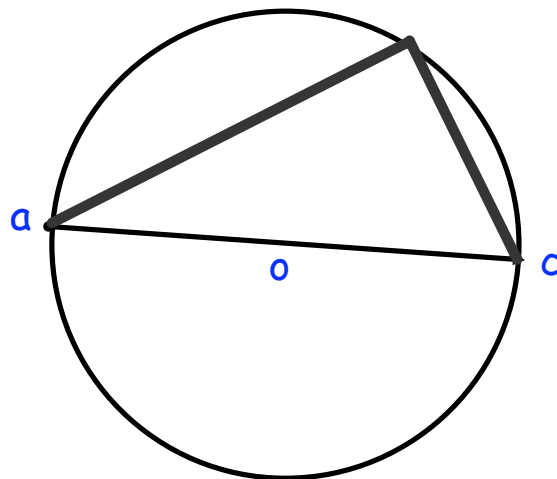
$$A = 16\pi$$

$$= 50.26 \dots \text{units}^2$$

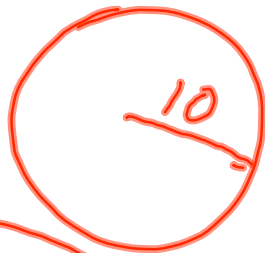


Right angle property of circles

Draw a line from point a to some point on the circle then to point c. What angle is formed?



11-19 Skip #15 for today.



$$A = 100\pi$$

is an acceptable answer.

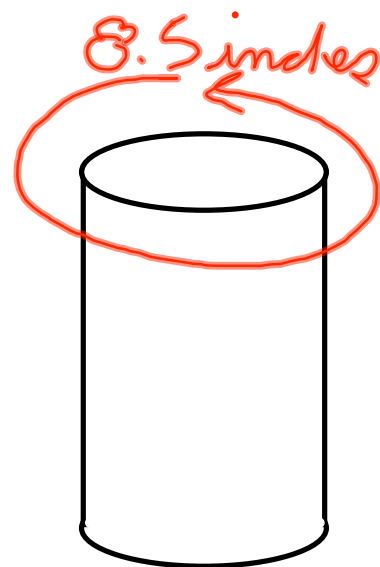
$$16) \quad 8.5 = \pi \cdot D$$

$$\frac{8.5}{\pi} = \frac{\pi \cdot D}{\pi}$$

$$\frac{8.5}{\pi} = D$$

or

$$2.7 \text{ in} \approx D$$



A circle of radius 2 rolls along the outside of the square. How far does the center of the circle travel after one complete trip around?

