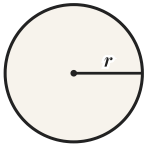


Circles and equations



1

A circle has an area of $36\pi \text{ cm}^2$. Find its radius.



$$\pi r^2 = 36\pi$$

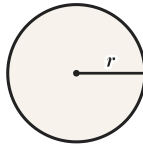
$$r^2 = 36$$

$$r =$$

Answer _____

2

A circle has a circumference of $14\pi \text{ cm}$. Find its radius.



$$2\pi r = 14\pi$$

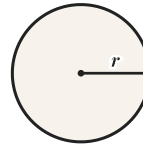
$$r = \div 2$$

$$r =$$

Answer _____

3

A circle has an area of $100\pi \text{ cm}^2$. Find its radius.



$$\pi r^2 =$$

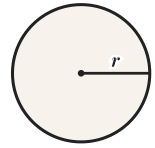
$$r^2 =$$

$$r =$$

Answer _____

4

A circle has a circumference of $22\pi \text{ cm}$. Find its radius.

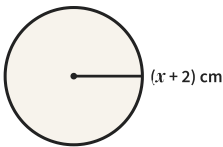


$$r =$$

Answer _____

5

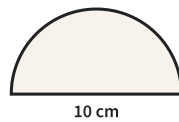
The area of this circle is $25\pi \text{ cm}^2$. Find x .



Answer _____

6

Find the perimeter of this semicircle in terms of π .



Answer _____

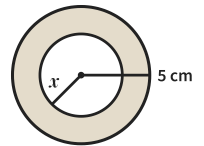
7

A circle has the same perimeter as a square with sides of 11 cm. Find the radius of the circle to 1 decimal place.

Answer _____

8

The shaded ring has an area of $16\pi \text{ cm}^2$. The outer radius is 5 cm. Find the inner radius x .



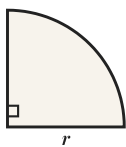
Answer _____

Circles and equations *further practice*



9

This quarter circle has an area of $9\pi \text{ cm}^2$. Find its radius.



Answer _____

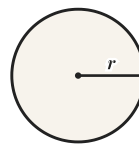
10

Two circles have the same area. One has radius $2x$ and the other has radius $x + 3$. Find x .

Answer _____

11

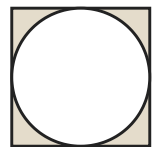
A circle has an area of 50 cm^2 . Find its radius to 1 decimal place.



Answer _____

12

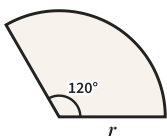
A circle fits exactly inside a square of area 64 cm^2 . Find the shaded area in terms of π .



Answer _____

13

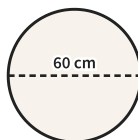
This sector has an angle of 120° and an area of $12\pi \text{ cm}^2$. Find its radius.



Answer _____

14

A wheel has a diameter of 60 cm. How many complete turns does it make in 100 m?



Answer _____

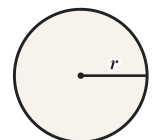
15

A circle has a circumference of $(4x + 2)\pi \text{ cm}$ and an area of $49\pi \text{ cm}^2$. Find x .

Answer _____

16

Ben says a circle with an area of $36\pi \text{ cm}^2$ has a radius of 18 cm, because half of 36 is 18. Explain his mistake.



Answer _____