

Jadwin-Geometry-8th Period-Off Site Learning Packet Day 2

The area and circumference of a circle can be calculated using the following formulas:

$A = \pi r^2$ and $C = 2\pi r$ or $C = \pi d$ where r is the radius and d is the diameter of the circle.

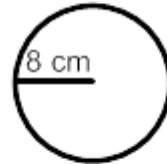
Example 1:

Find the area of a circle with radius of 3 inches.

Solution: Substitute 3 in for the radius of the circle in the area formula to get $A = \pi(3)^2$ then simplify (exponents first) to get $A = \pi(9)$ and then multiply to get $\approx 28.27 \text{ in}^2$.

Example 2:

Find the circumference of the circle at the right.

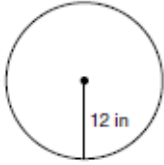


Solution: Since the circle has a radius of 8 cm, substitute this for r in the circumference formula: $C = 2\pi(8)$ and multiply to find the circumference is $\approx 50.27 \text{ cm}$.

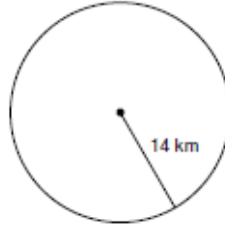
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Find the area of each. Use your calculator's value of π . Round your answer to the nearest tenth.

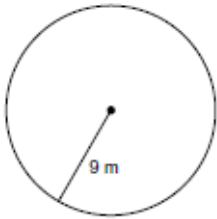
1)



2)



3)



4)



5) radius = 2.6 in

6) radius = 34.1 in

7) radius = 13.2 km

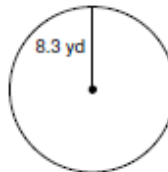
8) radius = 29.9 km

Find the circumference of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

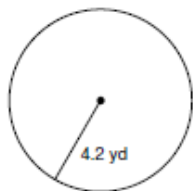
9)



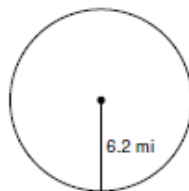
10)



11)



12)



13) radius = 5.2 ft

14) radius = 11.1 ft

15) radius = 9.5 in

16) radius = 9.3 in

Find the radius of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

17) circumference = 62.8 mi

18) circumference = 69.1 yd

19) circumference = 12.6 yd

20) circumference = 25.1 ft