NudgeLearn

Grade 7 · Math

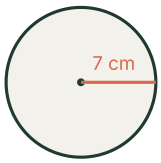
Circumference & Area of *Circles*

7.G.B.4

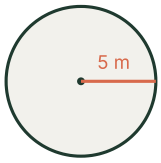
Name _____ Date _____

Use $C = 2\pi r = \pi d$ for circumference and $A = \pi r^2$ for area. Leave every answer in terms of π (do not use a decimal approximation). Include units.

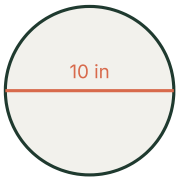
1. Find the circumference of the circle.



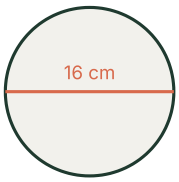
2. Find the area of the circle.



3. Find the circumference of the circle.



4. Find the area of the circle.



5. A circle has a radius of 3 ft. Find its circumference and its area.

6. A circle has a diameter of 9 cm. Find its area.

7. The circumference of a circle is 12π in. Find its radius.

8. The area of a circle is 36π square m. Find its radius.

9. Which expression gives the area of a circle with radius r?

   A) $2\pi r$ B) πd

   C) πr^2 D) πr

10. Find the area of the semicircle (half of a circle).

11. A circular garden has a radius of 10 m. A path runs all the way around its edge. What is the length of the path (the circumference)?

12. A pizza has a diameter of 14 in. Find the area of the top of the pizza.

13. A circular tabletop has an area of 100π square cm. A circular placemat with radius 4 cm is set on it. How much of the tabletop area is left uncovered? Leave your answer in terms of π.

14. A bike wheel has a radius of 13 in. Find the distance the bike travels in one full turn of the wheel (the circumference), then write the distance for 5 full turns. Leave both answers in terms of π.