

Grade 7 - Circumference and Area of Circles - Test

Common Core 7.G.B.4 · maths-pdf.fr/en/

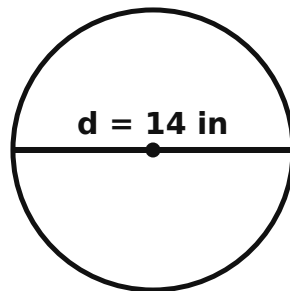
Name: _____ Class: _____ Date: ____/____/____

This 45-minute test checks the circumference and area of circles, the meaning of pi, radius and diameter, and semicircles and composite figures (Common Core 7.G.B.4). It has 9 questions worth 20 points in all. Show your work, because most questions give partial credit for correct steps.

About this test

- Grade: Grade 7
- Chapter: Circumference and Area of Circles
- Standards: 7.G.B.4
- Time: 45 minutes
- Total: 20 points

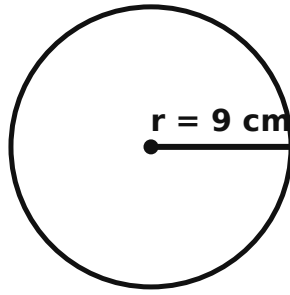
Question 1 - Circumference [2 pts]



A circle.

Find the circumference of the circle. Use $\pi \approx \frac{22}{7}$.

Question 2 - Area [2 pts]



A circle.

Find the area of the circle. Use $\pi \approx 3.14$.

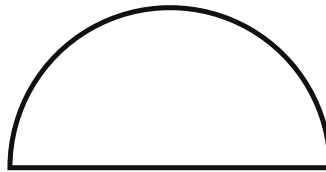
Question 3 - Find the radius [2 pts]

A circle has a circumference of 62.8 ft. Find the radius and then the area. Use $\pi \approx 3.14$.

Question 4 - Leave it in pi [2 pts]

A circle has a radius of 12 m. Write the circumference and the area in terms of π .

Question 5 - Semicircle [2 pts]



20 cm

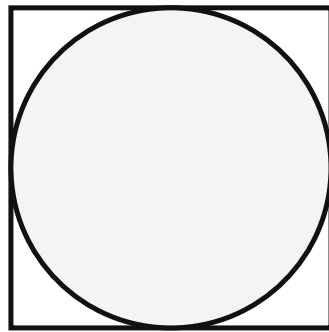
A semicircle.

Find the perimeter and the area of the semicircle. Use $\pi \approx 3.14$.

Question 6 - Wheel distance [2 pts]

A wheel has a radius of 15 in. How many inches does it roll in 5 turns? Use $\pi \approx 3.14$.

Question 7 - Leftover metal [2 pts]

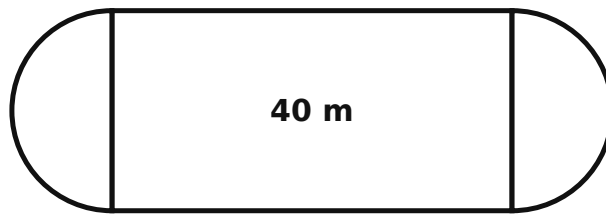


20 in

A circle cut from a square.

A circle of radius 10 in is cut from a 20-in square. Find the area of the leftover metal. Use $\pi \approx 3.14$.

Question 8 - Track [3 pts]

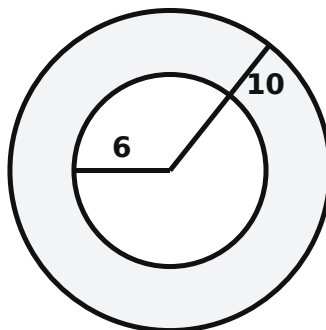


semicircle diameter 20 m at each end

A track made from a rectangle and two semicircles.

- Find the distance around the track (two straight sides of 40 m and two semicircles of diameter 20 m). Use $\pi \approx 3.14$. (1 point)
- Find the area enclosed. (1 point)
- A runner completes 5 laps. Find the distance run. (1 point)

Question 9 - Rug with a hole [3 pts]



A circular rug with a hole.

- a. Find the area of the outer circle. (1 point)
- b. Find the area of the inner circle. (1 point)
- c. Find the area of the rug itself (the ring). Use $\pi \approx 3.14$. (1 point)