

MCQs Questions for Class 10 Maths Chapter 12 Areas Related to Circles

Question 1: A circle has a radius of 10 cm. What is its circumference?

Options:

- (A). 10π cm
 - (B). 20π cm
 - (C). 40π cm
 - (D). 100π cm
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Question 2: Find the area of a circle whose diameter is 20 cm.

Options:

- (A). 100π cm²
 - (B). 200π cm²
 - (C). 400π cm²
 - (D). 50π cm²
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Question 3: The radius of a circle is tripled. The circumference becomes:

Options:

- (A). Double
 - (B). Triple
 - (C). Four times
 - (D). Nine times
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Question 4: Which formula is used to calculate the area of a circle?

Options:

- (A). $2\pi r$

- (B). πd
 - (C). πr^2
 - (D). $2r$
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Question 5: What is the area of a quadrant having radius 14 cm?

Options:

- (A). $49\pi \text{ cm}^2$
 - (B). $98\pi \text{ cm}^2$
 - (C). $154\pi \text{ cm}^2$
 - (D). $196\pi \text{ cm}^2$
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Question 6: A semicircle is formed from a circle of radius 7 cm. Find its perimeter.

Options:

- (A). $14\pi \text{ cm}$
 - (B). $7\pi + 14 \text{ cm}$
 - (C). $28\pi \text{ cm}$
 - (D). $49\pi \text{ cm}$
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Question 7: The curved part of a circle is known as:

Options:

- (A). Chord
 - (B). Radius
 - (C). Arc
 - (D). Diameter
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Question 8: How many quadrants make a complete circle?

Options:

- (A). 2

- (B). 3
 - (C). 4
 - (D). 5
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Question 9: The area enclosed by two concentric circles is called:

Options:

- (A). Segment
 - (B). Sector
 - (C). Annulus
 - (D). Arc
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Question 10: Find the circumference of a circle with diameter 35 cm.

Options:

- (A). 35π cm
 - (B). 70π cm
 - (C). 17.5π cm
 - (D). 140π cm
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Question 11: The area of a semicircle is equal to:

Options:

- (A). πr^2
 - (B). $2\pi r^2$
 - (C). $\frac{1}{2} \pi r^2$
 - (D). $\frac{1}{4} \pi r^2$
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Question 12: If the radius of a circle is doubled, its circumference becomes:

Options:

- (A). Same
 - (B). Double
 - (C). Triple
 - (D). Four times
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Question 13: Which of the following measures the boundary of a circle?

Options:

- (A). Area
 - (B). Radius
 - (C). Circumference
 - (D). Diameter
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Question 14: The radius of a circle is half of its:

Options:

- (A). Arc
 - (B). Diameter
 - (C). Chord
 - (D). Sector
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Question 15: A circle has radius 3.5 cm. Find its diameter.

Options:

- (A). 3.5 cm
 - (B). 5 cm
 - (C). 7 cm
 - (D). 10 cm
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Question 16: The area of a circle is measured in:

Options:

- (A). cm
 - (B). cm^2
 - (C). m
 - (D). m^3
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Question 17: Find the area of a circle whose radius is 14 cm.

Options:

- (A). $196\pi \text{ cm}^2$
 - (B). $28\pi \text{ cm}^2$
 - (C). $98\pi \text{ cm}^2$
 - (D). $49\pi \text{ cm}^2$
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Question 18: The area of a sector depends on:

Options:

- (A). Radius only
 - (B). Angle only
 - (C). Radius and angle
 - (D). Diameter only
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Question 19: Which part of a circle is bounded by two radii and an arc?

Options:

- (A). Segment
 - (B). Sector
 - (C). Chord
 - (D). Diameter
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Question 20: The circumference of a circle is directly proportional to its:

Options:

- (A). Radius
 - (B). Area
 - (C). Square of radius
 - (D). Volume
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Question 21: What is the area of a circle having radius 21 cm?

Options:

- (A). $441\pi \text{ cm}^2$
 - (B). $42\pi \text{ cm}^2$
 - (C). $21\pi \text{ cm}^2$
 - (D). $882\pi \text{ cm}^2$
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Question 22: A quarter part of a circle is known as:

Options:

- (A). Semicircle
 - (B). Segment
 - (C). Quadrant
 - (D). Arc
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Question 23: The diameter of a circle is 42 cm. Find its radius.

Options:

- (A). 42 cm
 - (B). 84 cm
 - (C). 21 cm
 - (D). 14 cm
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Question 24: The perimeter of a semicircle includes:

Options:

- (A). Arc only
 - (B). Diameter only
 - (C). Arc and diameter
 - (D). Radius only
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Question 25: The value of π is approximately equal to:

Options:

- (A). 2.14
 - (B). 3.14
 - (C). 4.13
 - (D). 1.34
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Answers

1. (B). 20π cm
2. (A). 100π cm²
3. (B). Triple
4. (C). πr^2
5. (A). 49π cm²
6. (B). $7\pi + 14$ cm
7. (C). Arc
8. (C). 4
9. (C). Annulus
10. (A). 35π cm
11. (C). $\frac{1}{2} \pi r^2$
12. (B). Double
13. (C). Circumference

14. (B). Diameter
15. (C). 7 cm
16. (B). cm^2
17. (A). $196\pi \text{ cm}^2$
18. (C). Radius and angle
19. (B). Sector
20. (A). Radius
21. (A). $441\pi \text{ cm}^2$
22. (C). Quadrant
23. (C). 21 cm
24. (C). Arc and diameter
25. (B). 3.14

