

Areas Related to Circles

Question 1.

The circumference of a circle exceeds its diameter by 120cm, then its radius is

- (a) 56cm
- (b) 14cm
- (c) 42cm
- (d) 28cm

Answer: (d) 28cm

Question 2.

The area of a circle is 2464 sq. cm, then its diameter is given by

- (a) 7cm
- (b) 14cm
- (c) 28cm
- (d) 56cm

Answer: (d) 56cm

Question 3.

The diameter of a wheel is 1.26 m. The distance travelled in 500 revolutions is

- (a) 2670 m
- (b) 2880 m
- (c) 1980 m
- (d) 1596 m

Answer: (c) 1980 m

Question 4.

The area of a sector of a circle with radius 21cm and sector angle 120° is

- (a) 462 sq. cm
- (b) 288 sq. cm



- (c) 156 sq. cm
- (d) 426 sq. cm

Answer: (a) 462 sq. cm

Question 5.

The perimeter of a circle is equal to that of a square, then the ratio of their areas is

- (a) 22 : 7
- (b) 14 : 11
- (c) 1 : 22
- (d) 11 : 14

Answer: (b) 14 : 11

Question 6.

The ratio of the areas of the incircle and circumcircle of a square is

- (a) 1 : 2
- (b) 1 : 3
- (c) 1 : 4
- (d) 1 : $\sqrt{2}$

Answer: (a) 1 : 2

Question 7.

If the area of a circle is numerically equal to twice its circumference, then the diameter of the circle is:

- (a) 4 units
- (b) n units
- (c) 8 units
- (d) 2 units

Answer: (c) 8 units

Question 8.

The ratio of area of two circles whose ratio of circumference is 3:1 will be

- (a) 3 : 1
- (b) 1 : 3
- (c) 1 : 9
- (d) 9 : 1

Answer: (d) 9 : 1

Question 9.

If the area of a circle is 154 cm^2 , then its perimeter is

- (a) 11cm
- (b) 22 cm
- (c) 44 cm
- (d) 55 cm

Answer: (c) 44 cm

Question 10.

The area of a sector of a circle bounded by an arc of length $5\pi \text{ cm}$ is equal to $20\pi \text{ cm}^2$, then its radius is

- (a) 12 cm
- (b) 16 cm
- (c) 8 cm
- (d) 10 cm

Answer: (c) 8 cm

Question 11.

The area of a circle whose circumference is 22 cm, is

- (a) $\pi \text{ cm}^2$
- (b) 38.5 cm^2
- (c) 22 cm^2
- (d) 77 cm^2

Answer: (b) 38.5 cm^2

Question 12.

If the radius of a circle is increased by 100%, then its area is increased by

- (a) 100%
- (b) 300%
- (c) 200%
- (d) 400%

Answer: (b) 300%

Question 13.

The perimeter of a semicircular protractor whose radius is 7cm is

- (a) 18cm
- (b) 27cm
- (c) 36cm
- (d) 72cm

Answer: (c) 36cm

Question 14.

If 'r' is the radius of a circle, then its perimeter is given by

- (a) πr
- (b) $2\pi r$
- (c) $2\pi d$
- (d) none of these

Answer: (b) $2\pi r$

Question 15.

The area of the circle that can be inscribed in a square of side 10cm is

- (a) 25 sq.cm
- (b) 10π sq.cm
- (c) 125π sq.cm
- (d) 20π sq.cm

Answer: (c) 125π sq.cm

Question 16.

It is proposed to build a single circular park equal in area to the sum of areas of two circular parks of diameters 16 m and 12 m in a locality. The radius of the new park would be

- (a) 10 m
- (b) 15 m
- (c) 20 m
- (d) 24 m

Answer: (a) 10 m

Question 17.

The distance covered by a circular wheel of diameter 'd' in 100 revolutions is

- (a) 100π
- (b) $100d$
- (c) πd
- (d) $100\pi d$

Answer: (d) $100\pi d$

Question 18.

The diameter of a wheel is 1.26 m. The distance travelled in 500 revolutions is

- (a) 2670 m
- (b) 2880 m
- (c) 1980 m
- (d) 1596 m

Answer: (c) 1980 m

Question 19.

The area of the square that can be inscribed in a circle of radius 12 cm is

- (a) 288 sq. cm
- (b) 576 sq. cm
- (c) 144 sq.cm
- (d) 500 sq. cm

Answer: (a) 288 sq. cm

Question 20.

The perimeter (in cm) of a square circumscribing a circle of radius a cm, is

- (a) $8a$
- (b) $4a$
- (c) $2a$
- (d) 16

Answer: (a) $8a$

Question 21.

The radii of two circles are 4 cm and 3 cm respectively. The diameter of the circle having area equal to the sum of the areas of the two circles (in cm) is:

- (a) 5
- (b) 7



- (c) 10
- (d) 14

Answer: (c) 10

Question 22.

The radii of two circles are 19 cm and 9 cm respectively. The radius of the circle which has circumference equal to the sum of the circumference of two circles is

- (a) 35 cm
- (b) 10 cm
- (c) 21 cm
- (d) 28 cm

Answer: (d) 28 cm

