

Class 10 Maths Chapter 11 Areas Related to Circles MCQs For Practice

1. If the circumference of a circle and the perimeter of a square are equal, then

- (a) Area of the circle = Area of the square
- (b) Area of the circle $>$ Area of the square
- (c) Area of the circle $<$ Area of the square
- (d) Nothing definite can be said about the relation between the areas of the circle and square

2. If the sum of the circumferences of two circles with radii R_1 and R_2 is equal to the circumference of a circle of radius R , then

- (a) $R_1 + R_2 = R$
- (b) $R_1 + R_2 > R$
- (c) $R_1 + R_2 < R$
- (d) Nothing definite can be said about the relation among R_1 , R_2 and R .

3. The diameter of a circle whose area is equal to the sum of the areas of the two circles of radii 24 cm and 7 cm is

- (a) 31 cm
- (b) 25 cm
- (c) 62 cm
- (d) 50 cm

4. If the area of a sector of a circle of radius 36 cm is 54π cm², then the length of the corresponding arc of the sector is

- (a) 2π cm
- (b) 5π cm
- (c) 3π cm
- (d) 4π cm

5. The radius of a circle whose circumference is equal to the sum of the circumferences of two circles of radii 15 cm and 18 cm will be

- (a) 33 cm
- (b) 23 cm
- (c) 16.5 cm
- (d) 66 cm

6. The area of a sector of a circle of radius 28 cm and central angle 45° is

- (a) 308 cm²
- (b) 294 cm²
- (c) 322 cm²
- (d) 318 cm²

7. In a circle of radius 7cm, an arc subtends an angle of 30° at the centre, the length of

- the arc is (a) 11 cm
(b) $11/3$ cm
(c) $22/3$ cm
(d) 22 cm

8. A cow is tied with a rope of length 14 m at the corner of a rectangular field of dimensions $20\text{m} \times 16\text{m}$. The area of the field in which the cow can graze is

- (a) 144 cm^2
(b) 169 cm^2
(c) 77 cm^2
(d) 154 cm^2

9. The length of the minute hand of a clock is 14 cm. The area swept by the minute hand in 5 minutes is equal to

- (a) 88 cm^2
(b) $145/3\text{ cm}^2$
(c) $154/3\text{ cm}^2$
(d) 154 cm^2

10. The area of the circle that can be inscribed in a square of side 14 cm is

- (a) $36\pi\text{ cm}^2$
(b) $49\pi\text{ cm}^2$
(c) $25\pi\text{ cm}^2$
(d) $10.25\pi\text{ cm}^2$

***** ANSWER KEY *****

- 1 - (b) 2 - (a) 3 - (d) 4 - (c) 5 - (a)
6 - (a) 7 - (b) 8 - (d) 9 - (c) 10 - (b)