

CLASS 10 · HOTS · OLYMPIAD PREPARATION · DPP SHEET

Chapter 11: HOTS: Areas Related to Circles (Class 10)

Daily practice problems: 8 questions with an answer key

Try every question on your own first. The answer key is on the last page.

1. A circle is drawn inside a square of side 28 cm touching all four sides. Find the area of the part of the square outside the circle.
2. The minute hand of a clock is 21 cm long. Find the area swept by it in 10 minutes.
3. Find the length of the arc and the area of a sector of angle 90° in a circle of radius 7 cm.
4. The circumference of the inner edge of a circular track is 308 m and that of the outer edge is 330 m. Find the width of the track.
5. A chord of a circle of radius 6 cm subtends an angle of 60° at the centre. Find the area of the minor segment (use $\pi = 3.14$ and $\sqrt{3} = 1.73$).
6. Find the perimeter and the area of a semicircle of diameter 14 cm.
7. Find the radius of the circle whose area is equal to the sum of the areas of two circles of radii 6 cm and 8 cm.
8. The wheel of a cycle has radius 35 cm. How far does it travel in 100 revolutions?

Answer Key

1. 168 square cm.
2. 231 square cm.
3. Arc 11 cm and area 38.5 square cm.
4. 3.5 m.
5. 3.27 square cm approximately.
6. Perimeter 36 cm and area 77 square cm.
7. 10 cm.
8. 220 m.

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