# Class 10 Mathematics – Chapter: Areas Related to Circles

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## 1. Introduction

This chapter covers calculation of areas of parts of circles such as sectors and segments.

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## 2. Area of a Circle

Area=πr2\text{Area} = \pi r^2Area=πr2

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## 3. Circumference of a Circle

Circumference=2πr\text{Circumference} = 2 \pi rCircumference=2πr

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## 4. Area of Sector of a Circle

If the central angle is θ\thetaθ degrees, then:

Area of sector=θ360×πr2\text{Area of sector} = \frac{\theta}{360} \times \pi r^2Area of sector=360θ×πr2

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## 5. Length of an Arc

Arc length=θ360×2πr\text{Arc length} = \frac{\theta}{360} \times 2 \pi rArc length=360θ×2πr

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## 6. Area of Segment of a Circle

Area of segment = Area of sector – Area of corresponding triangle

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# 7. Important Tips for Exams

- Use $\pi = \frac{22}{7}$ or 3.14 as per question.
- Always identify the radius and angle correctly.
- Draw a clear figure showing sector or segment.
- Practice problems with different angles.