

CLASS 10

MATHS

REVISION NOTES

Class 10 Maths Chapter 11 Areas Related to Circles Revision Notes

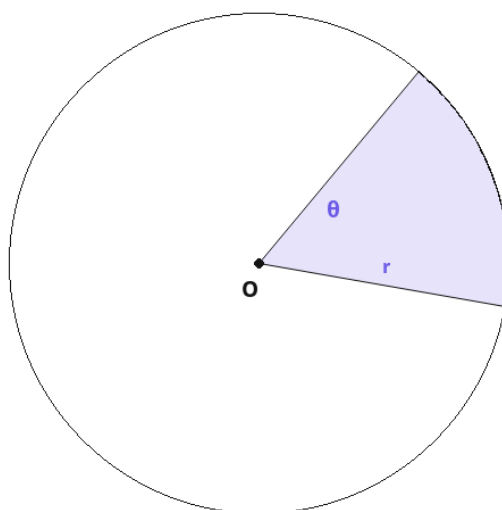
Quick revision notes for Class 10th Maths Chapter 11 — Areas Related to Circles — covering every formula for sector, segment and combined-figure area.

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Quick revision notes for **Class 10th Maths Chapter 11** — Areas Related to Circles — covering every formula for sector, segment and combined-figure area.



Sector area = $(\theta/360) \times \pi r^2$; Arc length = $(\theta/360) \times 2\pi r$, where θ is the angle at the centre.

Reference figure — sector of a circle (angle θ , radius r)

Class 10 Maths Chapter 11 – Areas Related to Circles: Quick Revision Notes

Circumference of a circle = $2\pi r$

Area of a circle = πr^2

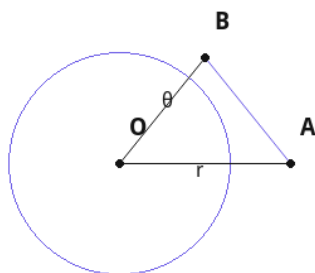
Length of an arc = $(\theta/360) \times 2\pi r$

Area of a sector = $(\theta/360) \times \pi r^2$

Area of a sector (using arc length l) = $(1/2) \times l \times r$

Area of a segment = Area of sector – Area of triangle = $(\theta/360)\pi r^2 - (1/2)r^2 \sin \theta$

Minor segment + Major segment = Area of circle



Segment (shaded by chord AB) = sector $\square$ triangle OAB.

Minor sector + Major sector = Area of circle

Quadrant ($\theta=90^\circ$): Area = $(1/4)\pi r^2$

Semicircle ($\theta=180^\circ$): Area = $(1/2)\pi r^2$

Area of a ring/annulus (radii $R > r$) = $\pi(R^2 - r^2)$

Angle swept by minute hand = 6° per minute; by hour hand = 0.5° per minute

Use $\pi = 22/7$ or 3.14 strictly as specified in the question

Class 10 Mathematics Chapter 11 – Solutions and Important Questions

Need full answers or more practice? See the [Class 10 Mathematics Chapter 11 Solutions](#) and [Class 10 Mathematics Chapter 11 Extra Questions](#). These Class 10 Mathematics Chapter 11 notes are ideal for quick revision just before exams.