

Mathematical Formulae

Compound Interest

Sec 3 : Chap 3

$$\text{Total amount} = P \left(1 + \frac{r}{100} \right)^n$$

Mensuration

Sec 2
Chap 14

Curved surface area of a cone = $\pi r l$

Surface area of a sphere = $4\pi r^2$

Volume of a cone = $\frac{1}{3} \pi r^2 h$

Volume of a sphere = $\frac{4}{3} \pi r^3$

Sec 3
Chap 6

Area of a triangle $ABC = \frac{1}{2} ab \sin C$

Sec 3
Chap 8

Arc length = $r\theta$, where θ is in radians

Sector area = $\frac{1}{2} r^2 \theta$, where θ is in radians

Trigonometry

Sec 3 : Chap 6

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$a^2 = b^2 + c^2 - 2bc \cos A$$

Statistics

Sec 4 : Chap 3

$$\text{Mean} = \frac{\sum fx}{\sum f}$$

$$\text{Standard deviation} = \sqrt{\frac{\sum fx^2}{\sum f} - \left(\frac{\sum fx}{\sum f} \right)^2}$$

Mathematical Formulae

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$$\text{Total amount} = P \left(1 + \frac{r}{100} \right)^n$$

Mensuration

$$\text{Curved surface area of a cone} = \pi r l$$

$$\text{Surface area of a sphere} = 4\pi r^2$$

$$\text{Volume of a cone} = \frac{1}{3} \pi r^2 h$$

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$$\text{Area of a triangle } ABC = \frac{1}{2} ab \sin C$$

$$\text{Arc length} = r\theta, \text{ where } \theta \text{ is in radians}$$

$$\text{Sector area} = \frac{1}{2} r^2 \theta, \text{ where } \theta \text{ is in radians}$$

Trigonometry

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

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$$\text{Mean} = \frac{\Sigma fx}{\Sigma f}$$

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