Cambridge O Level Mathematics (Syllabus D) (4024)

List of formulas

Area,
$$A$$
, of triangle, base b , height h .

$$A = \frac{1}{2}bh$$

Area,
$$A$$
, of circle of radius r .

$$A = \pi r^2$$

Circumference,
$$C$$
, of circle of radius r .

$$C = 2\pi r$$

Curved surface area,
$$A$$
, of cylinder of radius r , height h .

$$A = 2\pi rh$$

Curved surface area,
$$A$$
, of cone of radius r , sloping edge l .

$$A = \pi r l$$

Surface area,
$$A$$
, of sphere of radius r .

$$A = 4\pi r^2$$

Volume,
$$V$$
, of prism, cross-sectional area A , length l .

$$V = Al$$

$$V = \frac{1}{3}Ah$$

Volume,
$$V$$
, of cylinder of radius r , height h .

$$V = \pi r^2 h$$

Volume,
$$V$$
, of cone of radius r , height h .

$$V = \frac{1}{3}\pi r^2 h$$

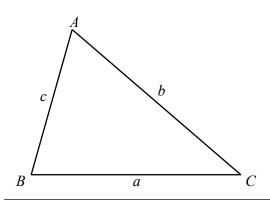
Volume,
$$V$$
, of sphere of radius r .

$$V = \frac{4}{3}\pi r^3$$

$$ax^2 + bx + c = 0$$
, where $a \neq 0$,

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

For the triangle shown,



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

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

Area =
$$\frac{1}{2}ab\sin C$$

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