

Geometry

area of circle	—	πr^2	circumference of circle	—	$2\pi r$ or πd
area of triangle	—	$\frac{1}{2} \times \text{base} \times \text{height}$	volume of prism	—	area of cross section \times length
area of rectangle	—	length \times width	volume of pyramid	—	$\frac{\text{area of base} \times \text{height}}{3}$
area of parallelogram	—	base \times height	sum of interior angles of polygon	—	$(n-2) \times 180^\circ$
area of trapezium	—	$\frac{1}{2}(a+b) \times h$	Pythagoras Theorem	—	$a^2 + b^2 = c^2$

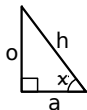
Probability

(events A and B)

Mutually exclusive events	—	$P(A \text{ or } B) = P(A) + P(B)$ also $P(A) + P(\text{not } A) = 1$
Not mutually exclusive events	—	$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$
Independent events	—	$P(A \text{ and } B) = P(A) \times P(B)$
Dependent / conditional events	—	$P(A \text{ and } B) = P(A) \times P(B \text{ given } A)$

Trigonometry

SOHCAHTOA



$$\sin x = \frac{o}{h}$$

$$\cos x = \frac{a}{h}$$

$$\tan x = \frac{o}{a}$$

Compound units



Compound interest

$$\text{original investment} \times \left(1 + \frac{\text{rate of interest as a decimal}}{\text{number of years}} \right)^{\text{number of years}} = \text{final value of investment}$$

Definitions and Formulae 2

I know this ☺ ☐
I'm working on it ☐

Definitions

$$\pi = \text{"pi"} \approx 3.142$$

r = radius of circle

h = height

l = length

w = width

v = final velocity (speed) (m/s)

u = initial velocity (speed) (m/s)

a = acceleration (m/s²)

t = time (s)

s = displacement (distance) (m)

Kinematic (formulae to work with)

$$v = u + at$$

$$v^2 = u^2 + 2as$$

$$s = ut + \frac{1}{2}at^2$$

Formulae given (when necessary) on exam paper

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

$$\text{Volume of sphere} \text{ — } \frac{4}{3}\pi r^3$$

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

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