

FORMULAE you need to know...

Circles

Area - πr^2 Circumference - πd or $2\pi r$

Angles

Sum of interior angles in a polygon $(n-2) \times 180$

Probability

P (A or B) = P(A) + P(B) - P (A and B)

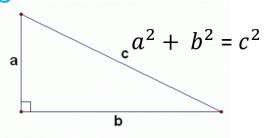
P (A and B) = P(A given B)P(B)

Compound Interest

Total accrued = P(1 + $\frac{r}{100}$)ⁿ

Where P is the Principle amount, r is the interest rate and n is the number of times that the interest is compounded.

Pythagoras' Theorem



Area

Rectangle – Length x Width Triangle – ½ x Base x Height Parallelogram – Base x Height Trapezium – ½ (a + b) x h

Volume

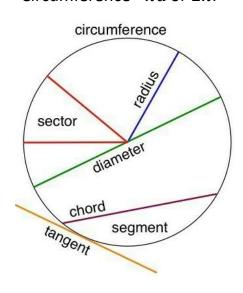
Volume of a prism =
Area of cross section x Length

Trigonometry

$$\sin\theta = \frac{Opposite}{Hypotenuse}$$

$$\cos\theta = \frac{Adjacent}{Hypotenuse}$$

$$\tan \theta = \frac{Opposite}{Adjacent}$$



Index Laws

$$x^{a} \times x^{b} = x^{a+b}$$

$$x^{a} \div x^{b} = x^{a-b}$$

$$(x^{a})^{b} = x^{ab}$$

$$x^{0} = 1 \qquad x^{-a} = \frac{1}{x^{a}}$$

$$x^{\frac{a}{b}} = (\sqrt[b]{x})^{a}$$