

Formula You Need To Remember!

You need to remember and be able to use these formula for your C2 exam - they won't be given to you! You should also know any formulae from C1.

Numbers and Algebra

- Laws of Logarithms:

$$\log_a b + \log_a c = \log_a (bc)$$

$$\log_a b - \log_a c = \log_a \left(\frac{b}{c} \right)$$

$$\log_a (b^k) = k \log_a b$$

Trigonometry

- Identities:

$$\sin^2 \theta + \cos^2 \theta = 1$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$

- For an arc of a circle with radius r subtending an angle θ radians:

$$\text{Arc Length} = r \theta$$

$$\text{Area} = \frac{1}{2} r^2 \theta$$

- Sine rule - In a triangle with vertices ABC :

$$\frac{A}{\sin A} = \frac{B}{\sin B} = \frac{C}{\sin C}$$

- Area of a triangle with vertices ABC :

$$\text{Area} = \frac{1}{2} a b \sin C$$

Calculus

- Area under a curve:

$$\int_a^b y \, dx \quad (y \geq 0)$$