Math Notes

Declan-Combley

1 Overview

This pdf contains all of my notes for my extension math class, feel free to use or distribute it in any way.

2 Forewarning

The information in this document may be inaccurate or wrong, and my spelling may be aswel.

Area

Im not going to tell you what area is because if you don't already know that you have bigger things to worry about. The following formulas are all pretty simple and you most likely know all of them aready. But i'm stupid so i'm leaving them in.

1. **Squares**

$$a = l^2$$

2. **Rectangles**

$$a = l \times w$$

3. **Triangles**

$$\frac{b \times h}{2}$$

4. **Parallelograms**

   Just note that h is the vertical height.

$$a = b \times h$$

5. **Trapezium**

   A is the top length and again h is the vertical height.

$$a = \frac{a+b}{2} \times h$$

6. **Circle**

$$\pi r^2$$

Surface Area

1. **TSA Of A Prism**

   Note that a, p, l is the from the base shape

   $$2a + p \times l$$

2. **TSA Of A Cube**

   $$6a^2$$

3. **TSA Of A Cuboid**

   $$2\left(lw + wh + lh\right)$$

4. **TSA Of A Cylinder**

   $$2\pi r^2 + 2\pi rh$$

5. **TSA Of A Cone**

   $$\pi r\left(r + s\right)$$

Volume

1. **Cube**

   $$v = a^3$$

2. **Rectangle**

   $$v = l \times w \times h$$

3. **Pyramid**

   $$v = \frac{lwh}{3}$$

4. **Cylinder**

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