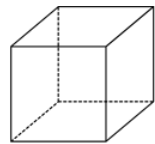


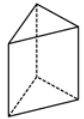
SHAPES, AREAS, VOLUMES

Names of Shapes

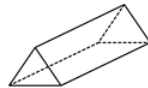
Number of Sides	Name
3	Triangle
4	Quadrilateral
5	Pentagon
6	Hexagon
7	Heptagon
8	Octagon
9	Nonagon
10	Decagon
11	Hendecagon
12	Dodecagon



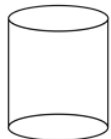
cube



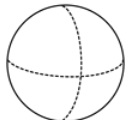
triangular prism



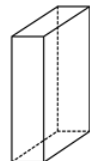
triangular prism



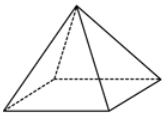
cylinder



sphere



rectangular prism



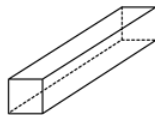
square pyramid
rectangular pyramid



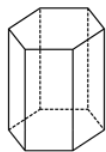
triangular pyramid



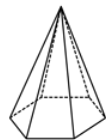
cone



square prism
rectangular prism



hexagonal prism



hexagonal pyramid

Quadrilaterals

Shape	Name	Properties
	Square	Four equal sides Four right angles Two pairs of parallel sides
	Rectangle	Four right angles Two pairs of equal parallel sides
	Rhombus	Four equal sides No right angles
	Parallelogram	Two pairs of equal and parallel sides
	Kite	Adjacent sides equal Diagonals are perpendicular
	Trapezium	One pair of parallel sides

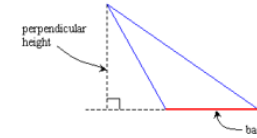
Areas and Volumes

Rectangle



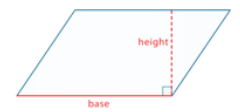
$$\text{Area} = \text{Length} \times \text{Width}$$

Triangle



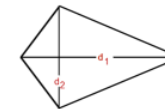
$$\text{Area} = \frac{1}{2} \times \text{Perp. Height} \times \text{Base}$$

Parallelogram



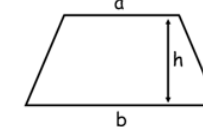
$$\text{Area} = \text{base} \times \text{height}$$

Kite



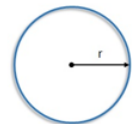
$$\text{Area} = \frac{1}{2} \times d_1 \times d_2$$

Trapezium



$$\text{Area} = \frac{1}{2} (a + b) h$$

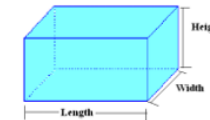
Circle



$$\text{Area} = \pi r^2$$

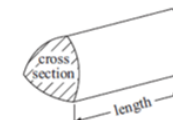
$$\text{Circumference} = 2 \pi r$$

Cuboid



$$\text{Volume} = \text{Length} \times \text{width} \times \text{Height}$$

Prism



$$\text{Volume} = \text{cross sectional area} \times \text{length}$$

Cylinder

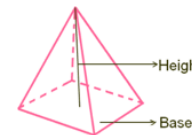


$$\text{Volume} = \pi r^2 h$$

Triangles

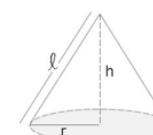
Shape	Name	Properties
	Scalene Triangle	All sides and angles are different
	Equilateral Triangle	All three sides and angles are equal (each angle is 60°)
	Isosceles Triangle	Two sides and two angles are equal
	Right-Angled Triangle	One angle is 90°

Pyramid



$$\text{Volume} = \frac{1}{3} \times \text{base area} \times \text{height}$$

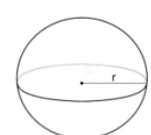
Cone



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

$$\text{Curved surface area} = \pi r \ell$$

Sphere



$$\text{Volume} = \frac{4}{3} \pi r^3$$

$$\text{Surface Area} = 4 \pi r^2$$