

LINES • ANGLES • CIRCLES



 LINE	 RAY	 ACUTE less than 90°	 STRAIGHT 180°			
 LINE SEGMENT	 ANGLE / VERTEX	 OBTUSE greater than 90°, less than 180°	 COMPLETE 360°			
 LINE OF SYMMETRY	 1° DEGREE	 COMPLEMENTARY add up to 90°	 ARC	 CIRCLE	 ELLIPSE	
 PARALLEL LINES	 RIGHT ANGLE	 SUPPLEMENTARY add up to 180°	 SEMICIRCLE	 RADIUS	 DIAMETER	 CHORD

TRIANGLES

 SCALED TRIANGLE	 RIGHT TRIANGLE
 ISOSCELES TRIANGLE	 EQUILATERAL TRIANGLE
 $\triangle ABC \cong \triangle DEF$	 $\triangle ABC \cong \triangle XYZ$

4 CONGRUENCY CASES

1. side, side, side SSS
2. side, angle, side SAS
3. angle, side, angle ASA
4. hypotenuse, side HyS

POLYGONS

 POLYGON	 QUADRILATERAL
 TRAPEZOID	 PARALLELOGRAM
 RECTANGLE	 RHOMBUS
 SQUARE	 REGULAR PENTAGON
 REGULAR HEXAGON	 REGULAR OCTAGON

3 - D MODELS

 TRIANGULAR PYRAMID	 RECTANGULAR PYRAMID
 TRIANGULAR PRISM	 RECTANGULAR PRISM
 CUBE	 PARALLELEPIPED
 CYLINDER	 CONE
 SPHERE	 ELLIPSOID

MEASUREMENTS

Perimeter = $2 \times (l+w)$
Area = $l \times w$

Volume = $l \times w \times h$
Surface area = $2(lh + lw + hw)$

Area = $\frac{\text{base} \times \text{height}}{2}$

$c^2 = a^2 + b^2$
(Pythagorean theorem)

Circumference of a circle = $2\pi r$
Area of a circle = πr^2

Surface area of sphere = $4\pi r^2$
Volume of a sphere = $\frac{4\pi r^3}{3}$

Surface area of cylinder = $2\pi r h + 2\pi r^2$
Volume of cylinder = $\pi r^2 h$

Volume of a cone = $\frac{\pi r^2 h}{3}$

Volume of a pyramid = $\frac{Bh}{3}$
(B= area of base)

ORDER OF OPERATION

1. Parentheses ()
2. Exponents n^2
3. Multiply X
or
Divide \div
4. Add +
or
Subtract -

SYMBOLS

- | | |
|-----------|------------------|
| $<$ | Smaller than |
| $>$ | Greater than |
| $=$ | Equal |
| \approx | Approximate |
| \leq | Smaller or equal |
| \geq | Greater or equal |