

PRIMARY MATHS

Percentage decrease/increase original to be 100

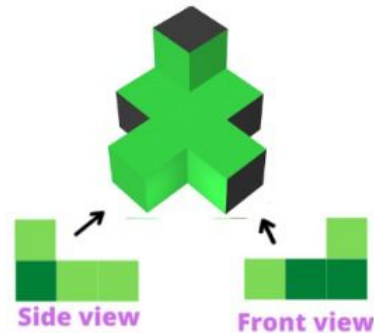
Matt's salary is \$5000
He was given \$500 as increase in salary
Calculate the percentage increase

$$\text{Percentage} = \frac{\text{increase}}{\text{original}} \times 100$$

$$= \frac{500}{5000} \times 100 = 10\%$$

Solid W

Top view

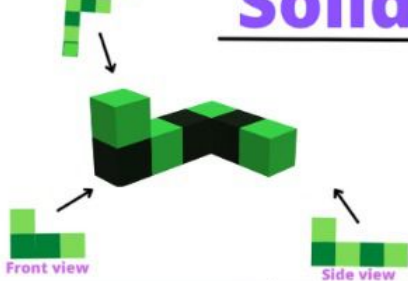


Side view

Front view

Solid Z

Top view



Front view

Side view

Whole Number Order of Operation



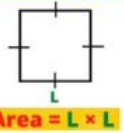
Speed



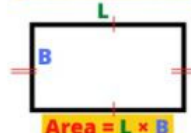
Average



Area of Square



Area of Rectangle



Perimeter

P of square = $4 \times L$
or = $L + L + L + L$

P of rectangle = $2 \times (L + B)$
or = $L + L + B + B$

Perpendicular and Parallel

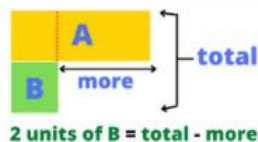


Part-whole model

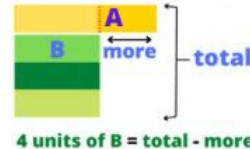
Part B = whole - A
Whole = Part A + Part B



Comparison model



Stack model



Percentage as decimal move decimal point to left

$$\frac{5}{100} = 0.05$$

$$\frac{203}{100} = 2.03$$

$$\frac{4.2}{100} = 0.042$$

% GST → (+)
 $(100\% + 7\% = 107\%)$

$$\text{GST} = \frac{7}{100} \times \$1500$$

$$= \$105$$

Price with GST =

$$\frac{107}{100} \times \$1500 = \$1605$$

or

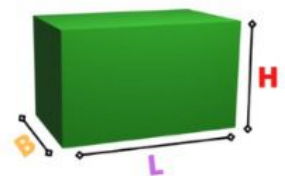
$$\$1500 + \$105 = \$1605$$

% discount → (-)
25% discount on sofa that costs \$500
 $100\% - 25\% = 75\%$
Price after discount
 $\frac{75}{100} \times \$500 = \375

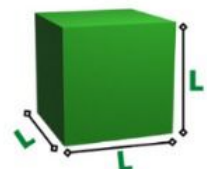
Scenario 2
A rectangular box of length 10cm by 7cm by 4cm is filled with cubes of side 2cm. How many cubes can fit inside the box?
 $L = 10 \div 2 = 5$
 $H = 7 \div 2 = 3R1$
 $B = 4 \div 2 = 2$
Total number of cubes = $5 \times 3 \times 2 = 30$

Ratio: Involving common variables by making them the same before solving

The number of cakes to sweets is $2 : 3$
The number of muffins to sweets is $1 : 5$
Cakes : Sweets : Muffins
 $2 \times 5 : 3 \times 5$
 $5 \times 3 : 1 \times 3$
= $10 : 15 : 3$



Volume of Cuboid = $L \times B \times H$



Volume of Cube = $L \times L \times L$

Ratio and Fraction

Butterflies : Cats : Zebras : Total
 $4 : 7 : 9 : 20$

The butterflies is $\frac{4}{7}$ of the cats

The cats is $\frac{7}{20}$ of the total

MIRACLE LEARNING CENTRE

WWW.MIRACLELEARNINGCENTRE.COM

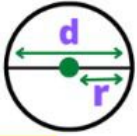
SCIENCE AND MATH SPECIALIST (PRI, SEC, JC)

CALL 6463 8756 OR SMS 8128 8342



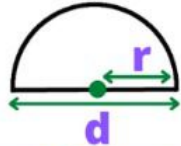
PRIMARY MATHS

Area of Circles



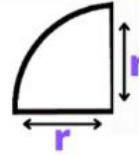
$d = 2r$
Area = $\pi \times r \times r$

Semi circle



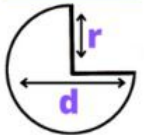
Area = $\frac{1}{2} \times \pi \times r \times r$

Quadrant



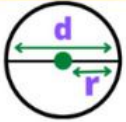
Area = $\frac{1}{4} \times \pi \times r \times r$

$\frac{3}{4}$ Circle



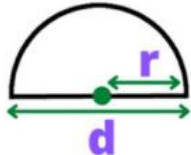
Area = $\frac{3}{4} \times \pi \times r \times r$

Perimeter of circles



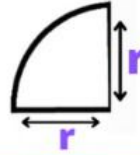
P = $\pi \times d$
= $\pi \times 2 \times r$
= $2\pi r$

Semi circle



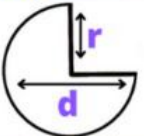
P = $\pi r + 2r$

Quadrant



P = $\frac{\pi r}{2} + 2r$

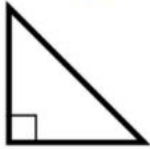
$\frac{3}{4}$ Circle



P = $\frac{3}{4} (2\pi r) + 2r$
= $\frac{3}{2} \pi r + 2r$

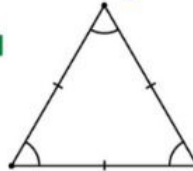
Right-angled Triangle

one angle = 90°



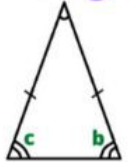
Equilateral Triangle

All sides are equal
 All angles = 60°



Isosceles Triangle

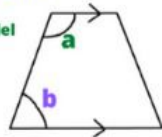
$\angle c = \angle b$
 2 equal sides



Trapezium

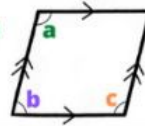
1 pair opposite sides are parallel

$\angle a + \angle b = 180^\circ$



Rhombus

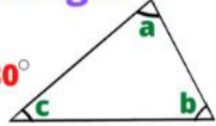
4 equal sides
 Opposite sides are parallel
 $\angle a = \angle c$
 $\angle a + \angle b = 180^\circ$



Any Triangle

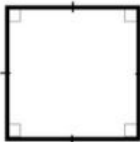
Sum of

$\angle a + \angle b + \angle c = 180^\circ$



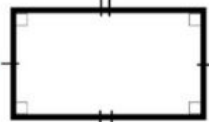
Square

All 4 sides are equal
 Opposite sides are Parallel
 Each angle = 90°



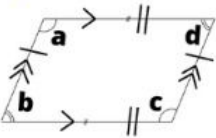
Rectangle

Parallel sides are equal
 Opposite sides are parallel
 Each angle = 90°

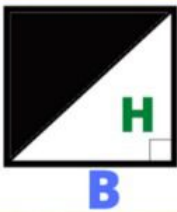


Parallelogram

Opposite sides are equal
 Opposite sides are parallel
 $\angle a = \angle c$ $\angle b = \angle d$
 $\angle a + \angle b = 180^\circ$ $\angle c + \angle d = 180^\circ$
 $\angle a + \angle d = 180^\circ$ $\angle b + \angle c = 180^\circ$



Area of Triangle = $\frac{1}{2}$ Area of Square



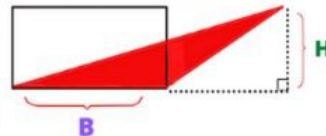
Area = $\frac{1}{2} \times B \times H$
 of Δ

Area of Triangle = $\frac{1}{2}$ Area of rectangle

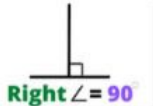


Area = $\frac{1}{2} \times B \times H$
 of Δ

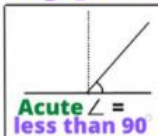
Area = $\frac{1}{2} \times B \times H$



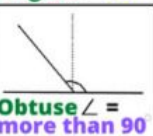
Angle Types



Right $\angle = 90^\circ$



Acute $\angle =$
 less than 90°

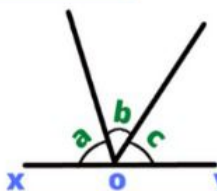


Obtuse $\angle =$
 more than 90°

Angles on a Straight line

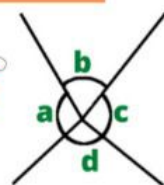
xy is a straight line

$\angle a + \angle b + \angle c = 180^\circ$



Angles at a point

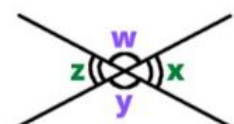
$\angle a + \angle b + \angle c + \angle d = 360^\circ$



Vertically Opposite Angles

$\angle w = \angle y$

$\angle z = \angle x$



MIRACLE LEARNING CENTRE

WWW.MIRACLELEARNINGCENTRE.COM

SCIENCE AND MATH SPECIALIST (PRI, SEC, JC)

CALL 6463 8756 OR SMS 8128 8342