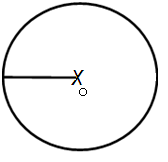
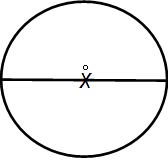
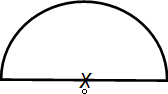
**Grades**

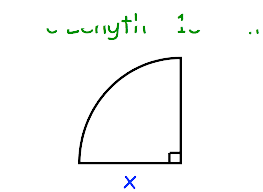
 0 is the center of circle

Diameter = 2 x radious

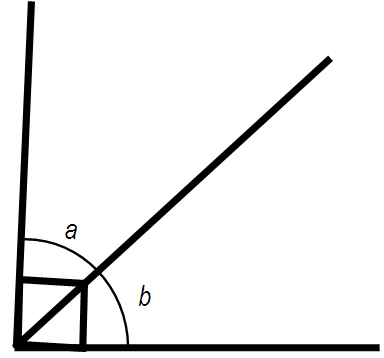
 Diameter

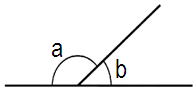
**Semi-Circle**

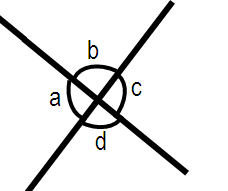


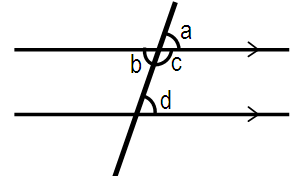
**Quarter Circle (Quadrant)**

**Geometry**

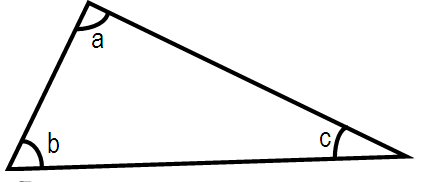
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****

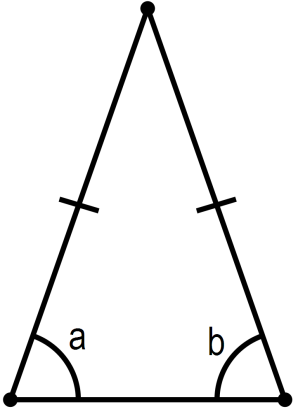
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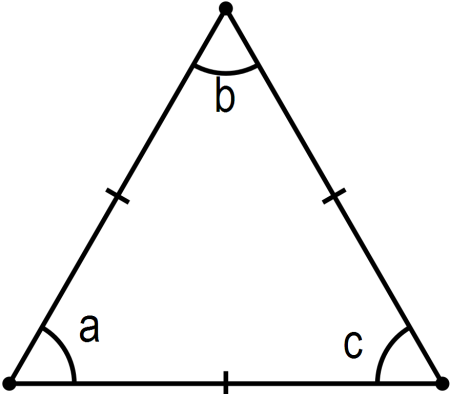


**Triangle**

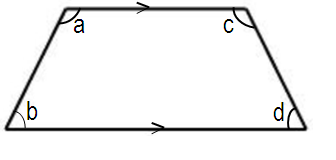


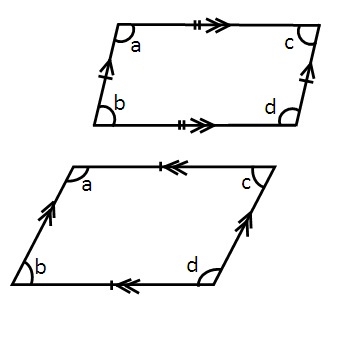
**Isosceles Triangle**

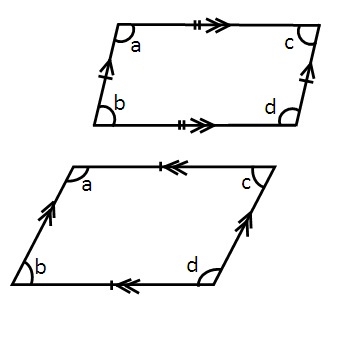
****

**Equilateral Triangle**

**Trapezium**

****

**Parallelogram**

**Rhombus**

**Fractions**

**Ratio**

**Decimals**

**Percentage**

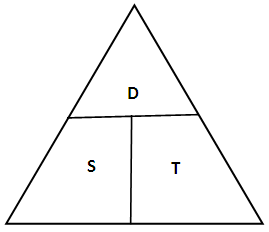
**Percentage Increase / Decrease**

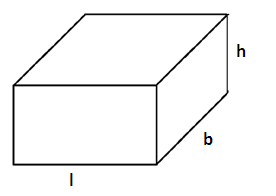
**Percentage Discount**

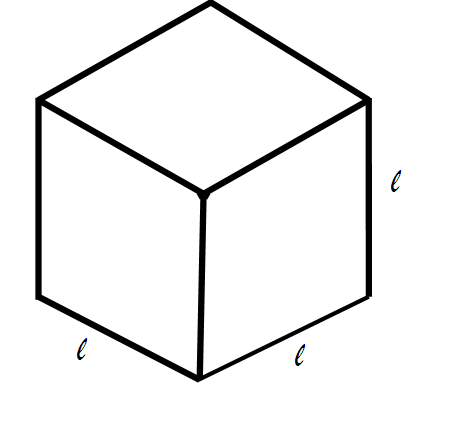
**Percentage Profit/ Loss**

Cost Price + Profit = Selling Price

**Speed**

****

****

**Cube**

Average

**Square Numbers Cubic Numbers**

1x 1 =1 1x1x1=1

2x2=4 2x2x2=8

3x3=9 3x3x3=27

4x4=16 4x4x4=64

5x5=25 6x6x6=216

6x6=36 7x7x7=343

7x7=49 8x8x8=512

8x8=64 9x9x9=729

9x9=81 10x10x10=1000

10x10=100 11x11x11=1331

11x11=121 12x12x12=1728

12x12=144

13x13=164

14x14=196

15x15=125

**Primary Math’s Formula List**

**Conversation Table**

Length

10mm= 1cm

1m= 100cm

1km= 1000m

**Mass**

1Kg = 1000g

**Volume**

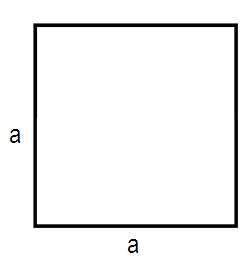
**Time**

1 Hour = 60 Minutes

1 Minutes = 60 Seconds

1 Hours = 3600 Minutes

**Area and perimeter**

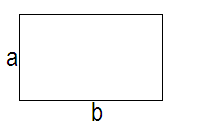
**Square**

Area of Square = length x length

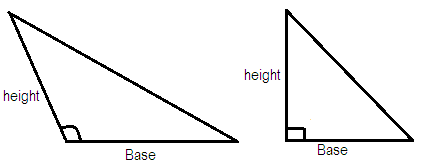
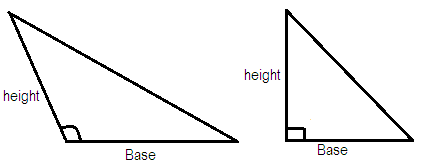
= a x a

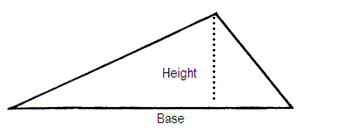
Perimeter of square = 4 x length

**Rectangle**

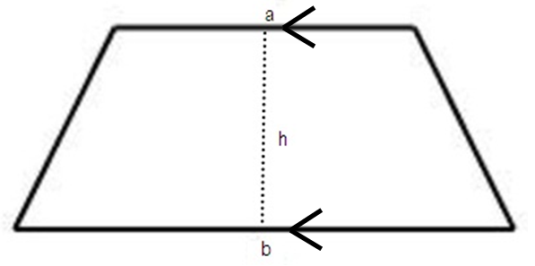
  
 Area of Rectangle = Length x Breadth

Perimeter of Rectangle = 2length +Breadth

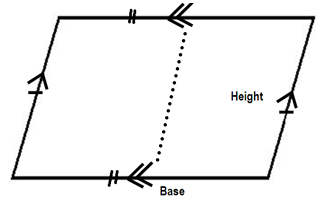
**Triangles**



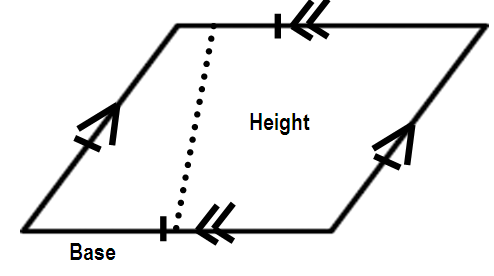
Area of Triangles =

**Trapezium**

Area of Trapezium

**Parallelogram**

Area of Parallelogram and Rhombus = Base x Height

**Rhombus**

**E Maths Formula List**

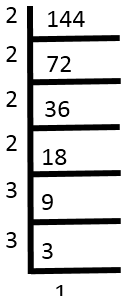
**Integers**

**Prime Numbers** – Numbers with only 2 factors, land itself. Eg : 2,3,5,7………

**Composite Number** – Numbers with at last 3 distinct factors. Eg 4,6,8,9……..

**Rational Number**– Numbers that can be expressed infraction Eg 1,

Irrational Number – Numbers that cannot be expressed in fraction Eg.

**Indices Express in index notation**

**Standards Form**

**Express in index form**

**Expression Standard form**

**Greek Prefix Multiplying Factor**

Tera

Giga

Mega

Kilo

Mili

Mioro

Nano

Pico

Million

Billion

Trillion

**Conversion**

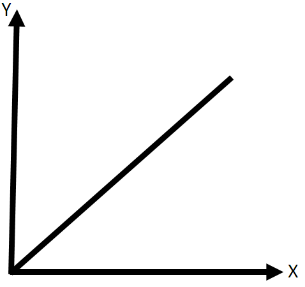
1km =

1cm =

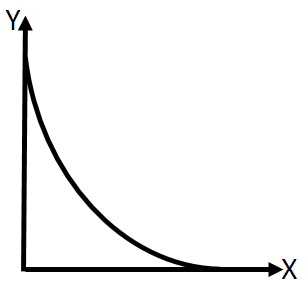
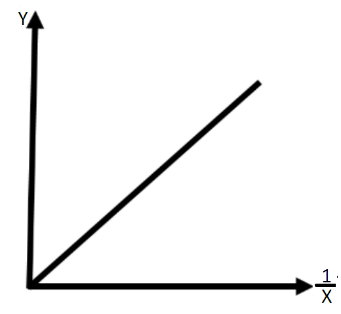
1cm =

1 hectare = 100 acres =

**Direct and Inverse Proportion**

Y is directly proportional to

Y is inversely proportional



% increase or decrease

**Algebra Expansim and Factorization**

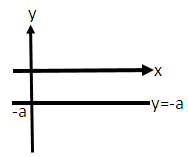
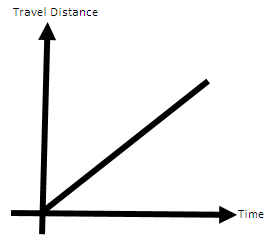
**Quadratic Equations**

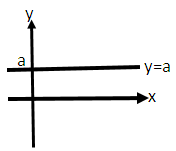
**Completing the Square**

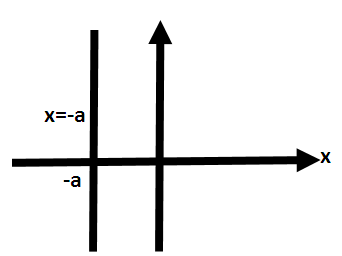
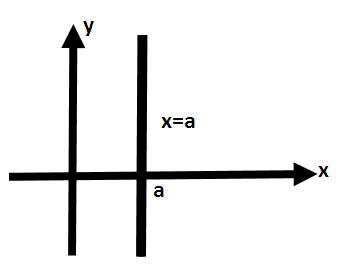
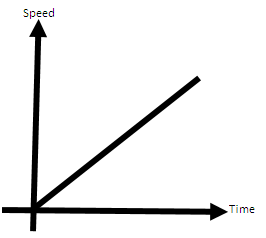
**Statistics**

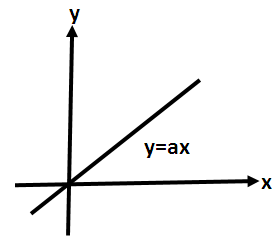
**Coordinate Geometry**

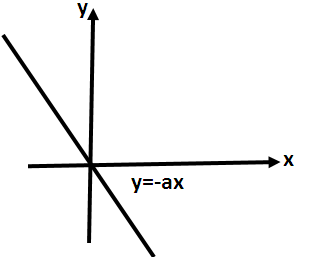
**Graph**

Important Shapes of Graph



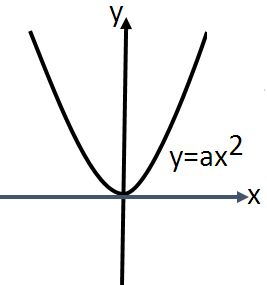
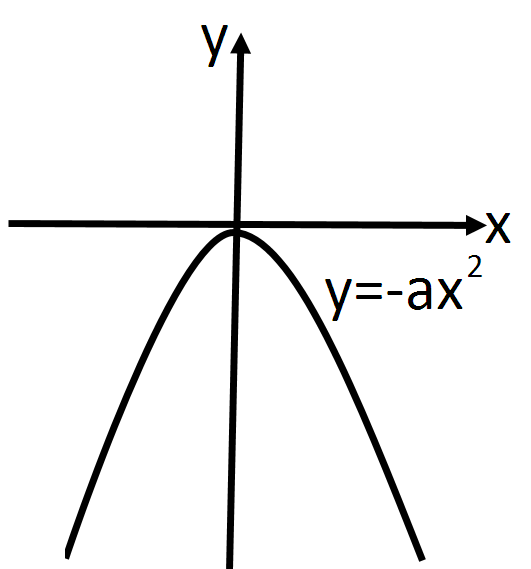
 Speed = Gradient of Distant- Time Graph = Speed





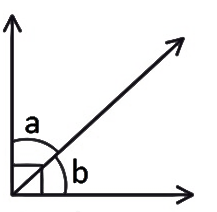
Distance = Speed x Time

Area of Speed – Time Graph = Distance

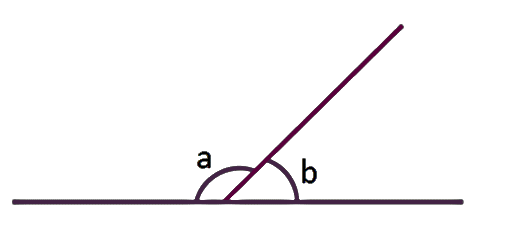
 Accelerate / Deceleration =

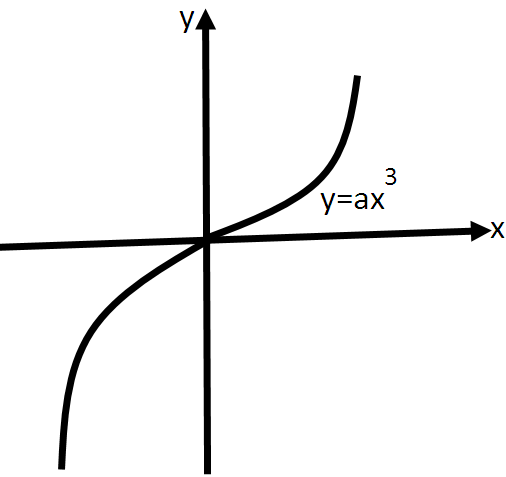
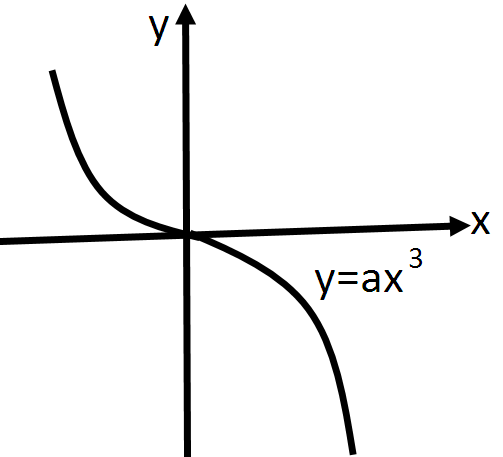
Gradient of Speed – Time Graph

= Acceleration / Deceleration

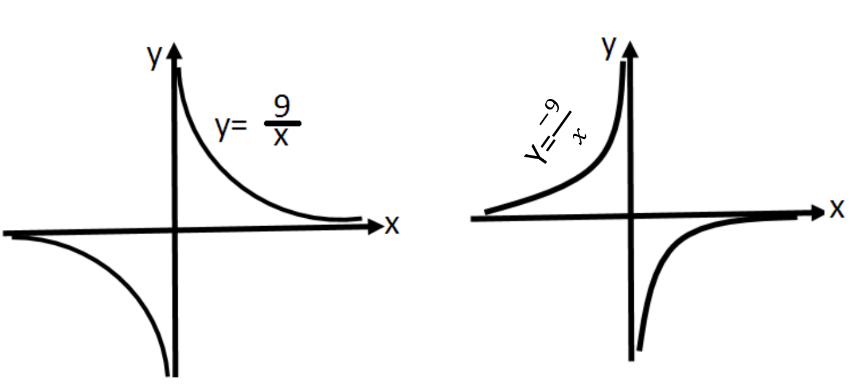
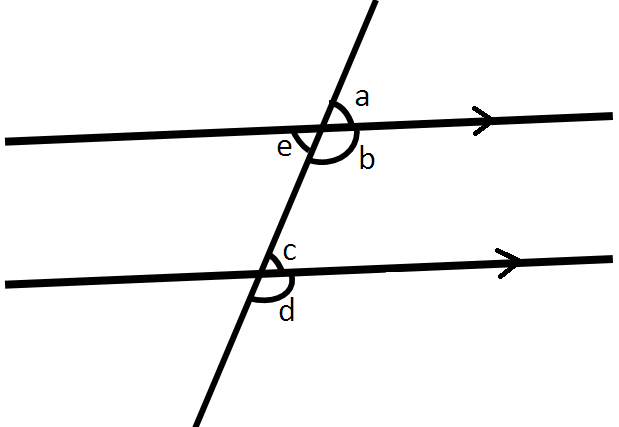
 **Geometry**

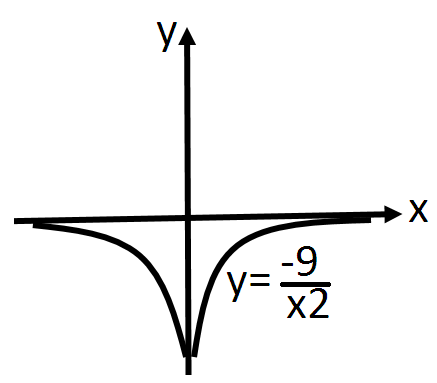
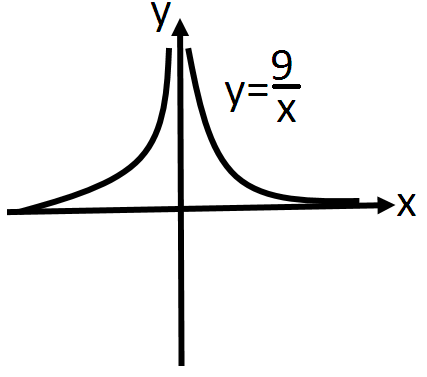
Complimentary

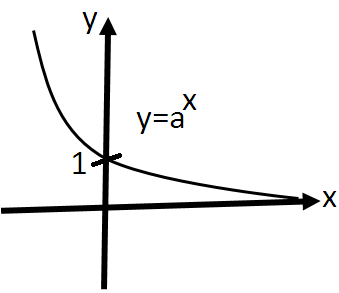


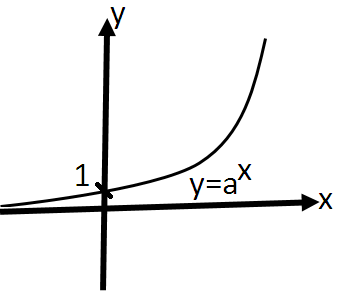


Supplementary

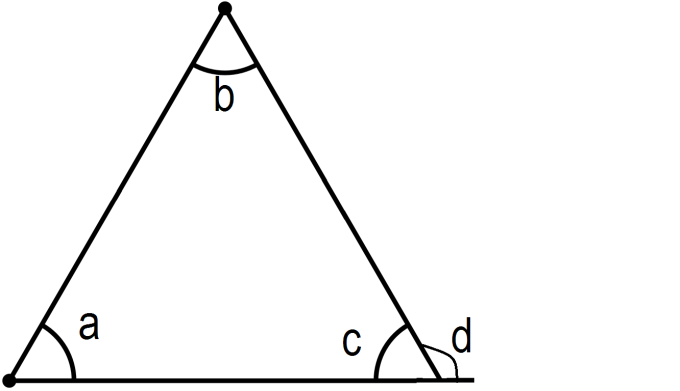


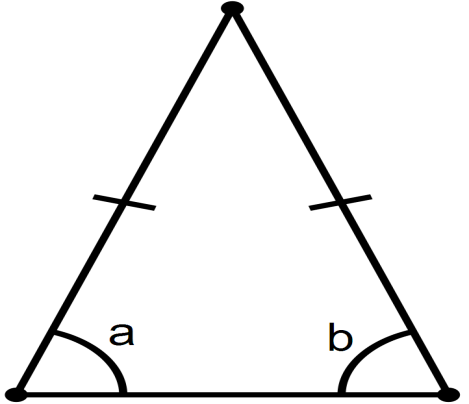


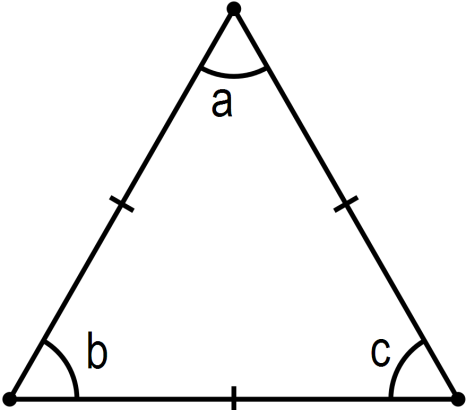


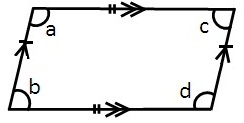


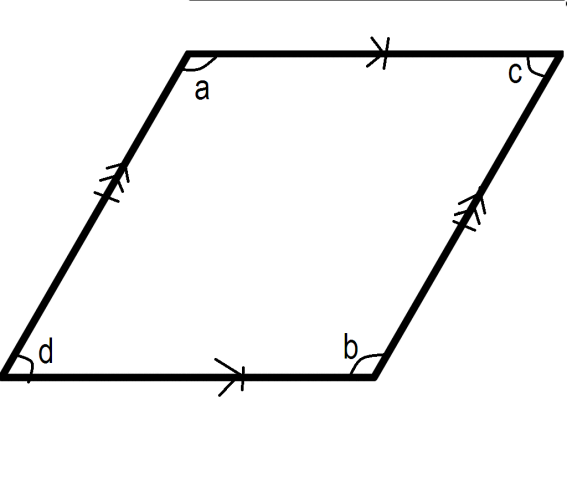
**Triangle**

****

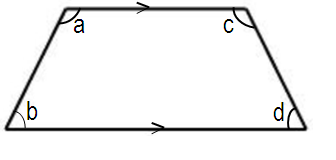




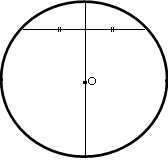
**Parallelogram**

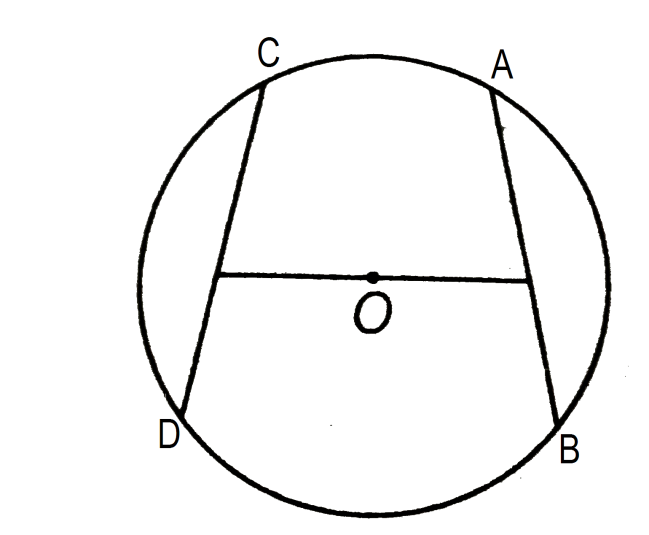
**Rhombus**

**Trapezium**

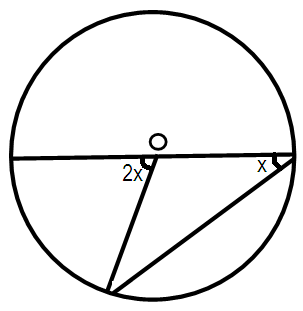
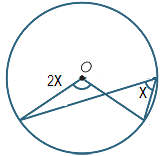
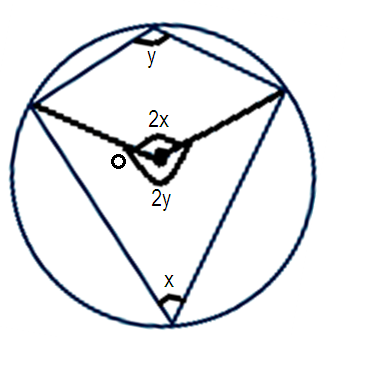
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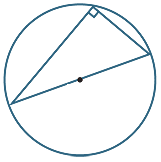
**Circes**

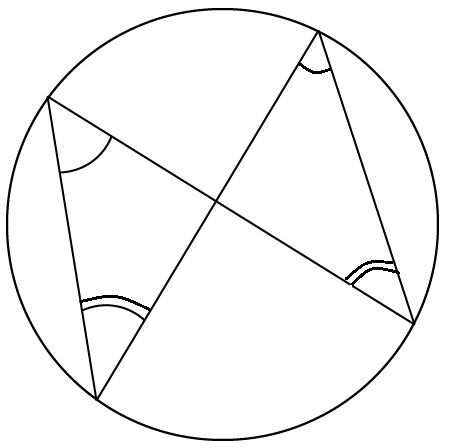
** When radius is**

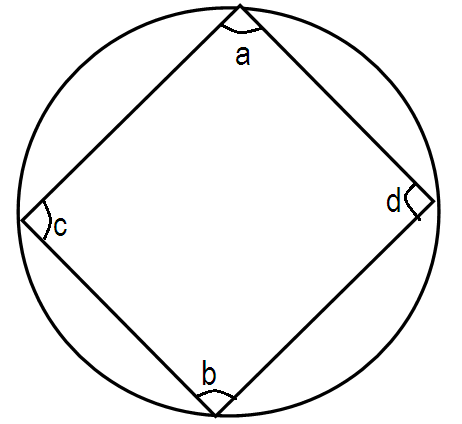


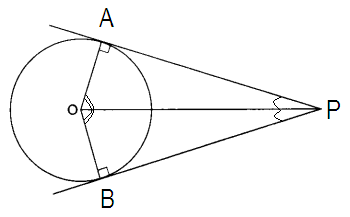
AB =CD











**Polygons**

3 sides – triangle

4 sides – quadrilateral

5 sides – pentagon

6 sides – hexagon

7 sides – heptagon

8 sides – octagon

9 sides – nonagon

10 sides – decagon

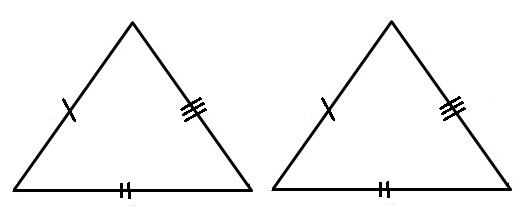
Sum of interior

Each interior

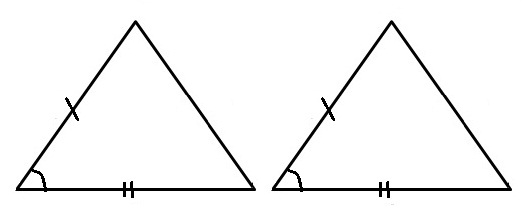
Each interior

Similarity and congruency

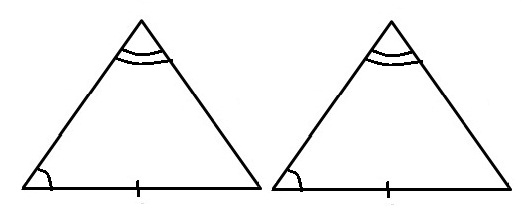
**Congruency**

2 figures have same shape and same size

SSS congruency



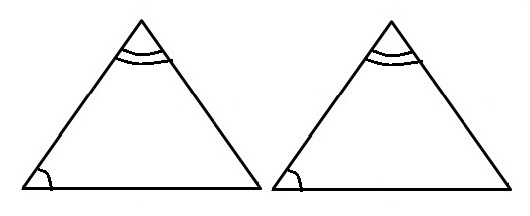
SAS Congruency

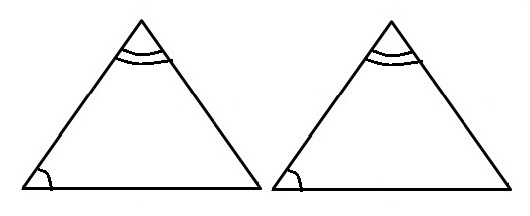


AAS Congruency

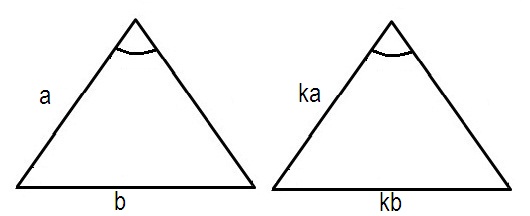
**Similarity**

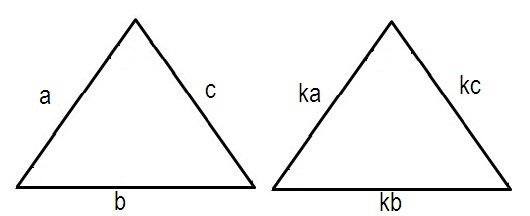
2 figures have same shape but different size





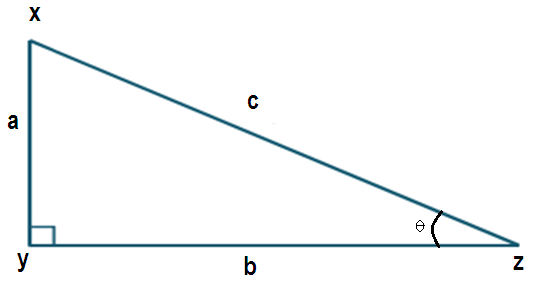
AA Similarity

****

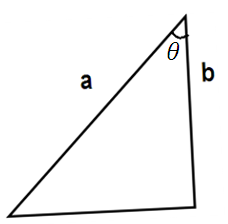
****

If 2 figure are similar

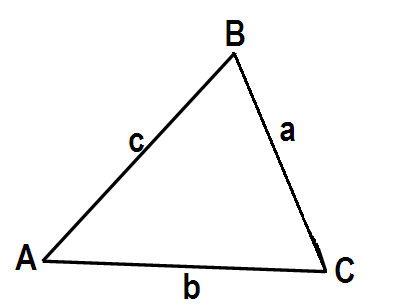
Trigonometry

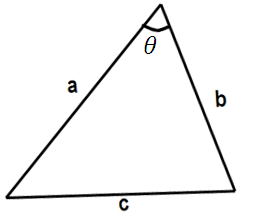


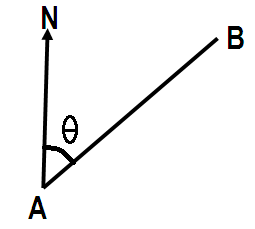
By converse of Pythagoras theorem, ABC is a right angle triangle angled triangle



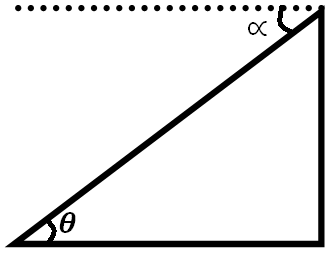
*𝐴𝑟𝑒𝑎=*





**Bearings**

Bearing of B from A



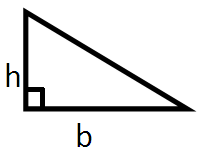
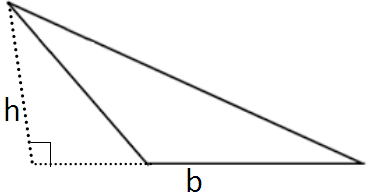
Angle of elevation

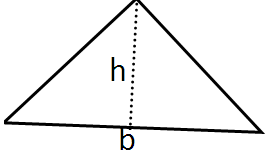
Angle of depression

Angle of elevation =angle of depression

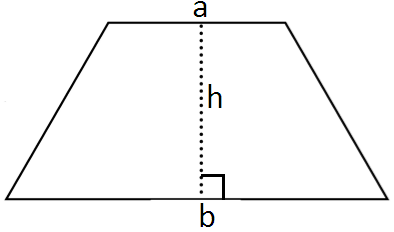
**Area & Perimeter**

Triangle

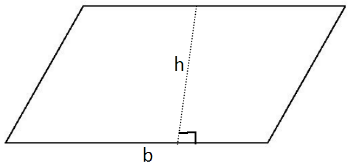
Perimeter=Sum of lengths of all 3 sides

Area = x Base x Height

**Trapezium**

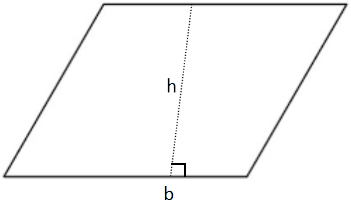
Perimeter = Sum of lengths of all 4 sides

Area = x (a+b) x h

**Parallelogram**

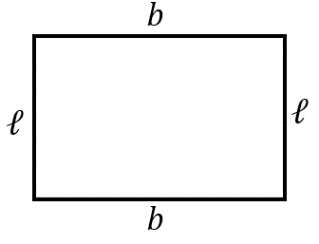
Perimeter = Sum of lengths of all 4 sides

Area = Base x Perpendicular Height

**Rhombus**

Perimeter = 4 x length

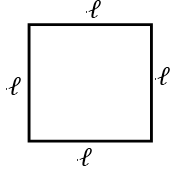
Area = Length x Perpendicular Height



**Rectangle**

Perimeter = =2

Area=

**Square**

Perimeter =

Area =

Kite

Perimeter = Sum of length of all 4 sides

Area = (where a and b are lengths of 2 diagonals)

**Circle**

Circumference = or

Area =

Semi-Circle

Perimeter =

Area =

**Quadrant**

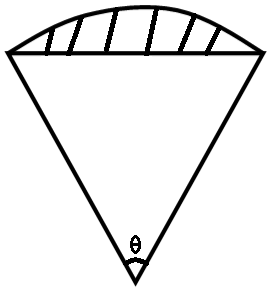
Perimeter =

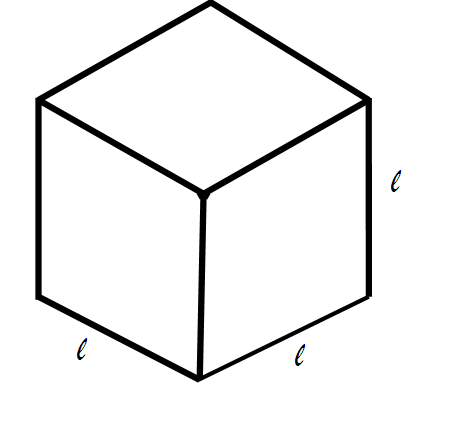
Area =

**Sector**

Area of sector = (in degree) (in radian)

Arc Length = (in degree) (in radian)

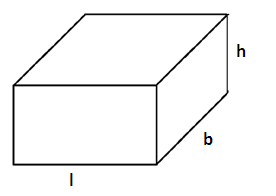
****Area of Segment = Area of sector – Area of triangle

**Solid Figures**

**Cube**

Surface Area =

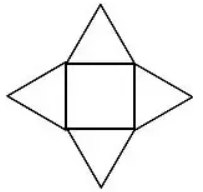
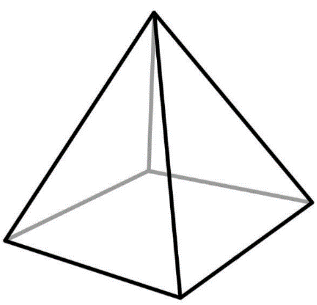
Volume =

****

**Cuboid**

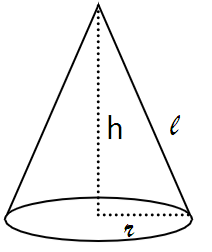
Surface Area =

Volume =

******Pyramid**

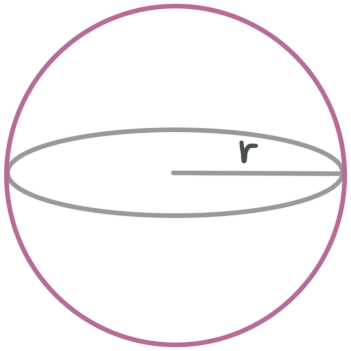
Surface Area = Base Area + 4 Triangles

Volume = Base Area x Perpendicular Height

**Cone**

Curve Surface Area

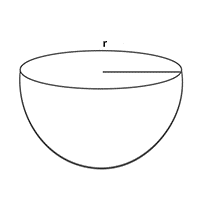
Volume =



**Sphere**

Surface area =

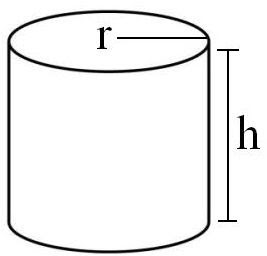
Volume =

**Hemisphere**

Curve Surface area =

Total Surface Area

Volume =

**Cylinder**

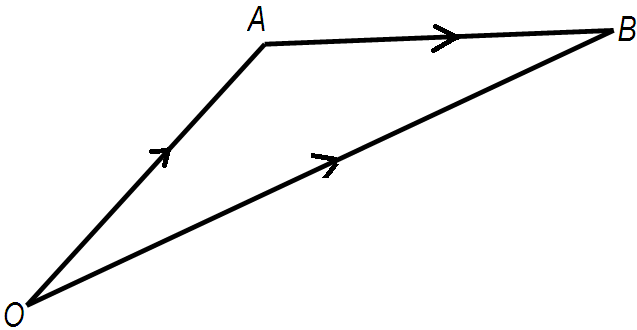
Curve Surface area =

Open Cylinder Surface Area= 2

Close Cylinder Surface Area =

Volume =

**Vectors**



If A has coordinate (x,y)