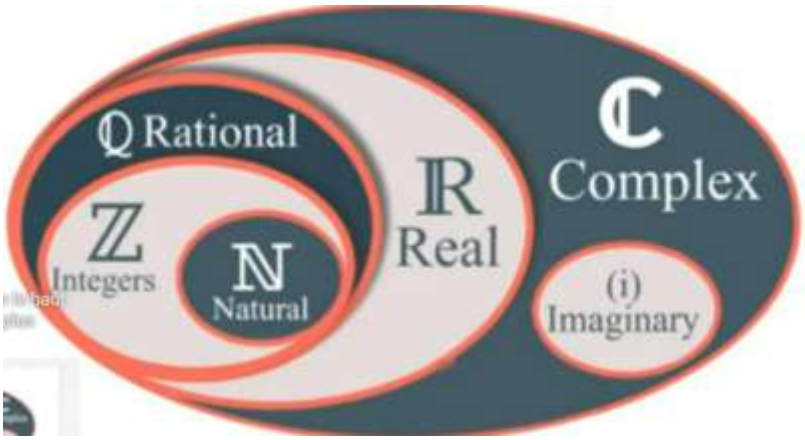


Fraction الكسر 3 Numerator / 4 Denominator

Remainder المتبقى

1:3 Ratio

% Percentage

90% Ninety Percent

Value القيمة Constant ثابت Variable متغير

Ascending Order الترتيب التصاعدي
1,2,3,4,.....,50
Minimum

Descending Order الترتيب التنازلي
10,9,8,7,.....,1
Maximum

Algebraic Expression التعبير الجبري
$4x^2+3x+5$
3x: Term حد
3: Coefficient المعامل

ذات الحدين Binomial

ذات ثلاث الحدود Trinomial

كثيرة الحدود Polynomial

Equation المعادلة
$2x^2-3=15$

Roots جذور المعادلة
x=3 , x=-3

Solution Set مجموعة الحل
{-3,3}

$2(3)^2-3=15$
Substitution

Inequality المتباينة
$-1<2x+3<5$

$x \in]-1,1[$
Belongs to
Intervals

Matrix المصفوفة
Matrices (الجمع)
Row

$$\begin{bmatrix} 3 & 4 & 3 \\ 5 & 3 & 2 \\ 4 & 5 & 2 \end{bmatrix}$$

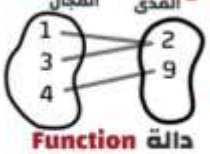
Column

Transpose منقول المصفوفة

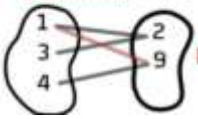
$$\begin{bmatrix} 3 & 5 & 4 \\ 4 & 3 & 5 \\ 3 & 2 & 2 \end{bmatrix}$$

Determinant محدد المصفوفة

Domain المجال
Range المدى



Function دالة



Relation علاقة

Permutation تباديل n_{P_r}

Combination توفيق n_{C_r}

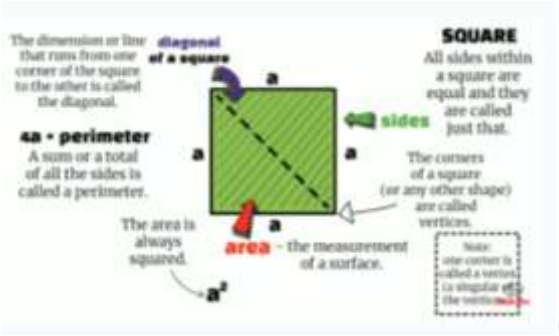
Factorial مضروب
4!=4x3x2x1

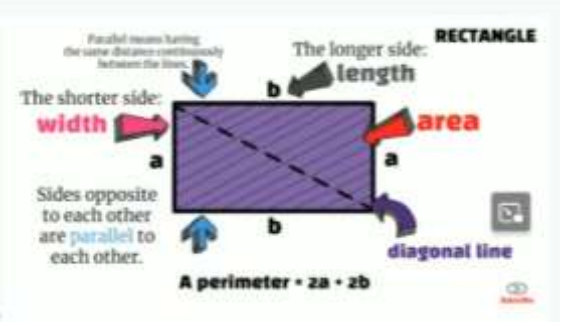
Sequence المتتالية

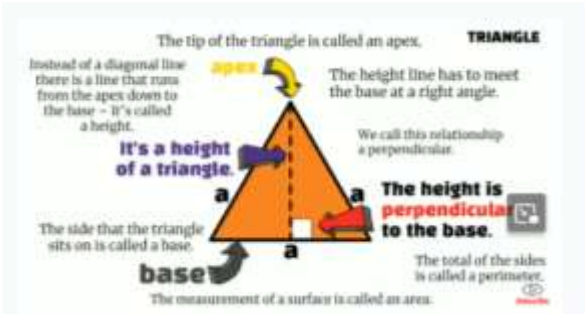
Arithmetic Sequence متتالية حسابية
1,3,7,9,.....

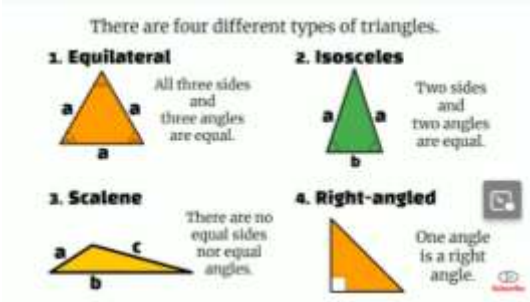
Geometrical Sequence متتالية هندسية
1,2,4,8,.....

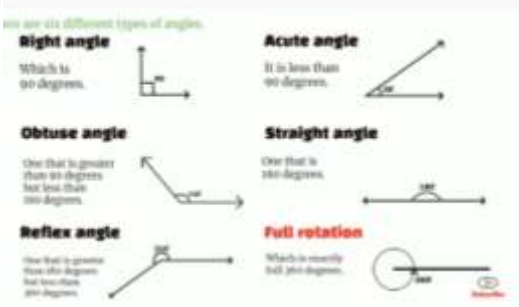
Series المتسلسلة
1+2+3+4+.....

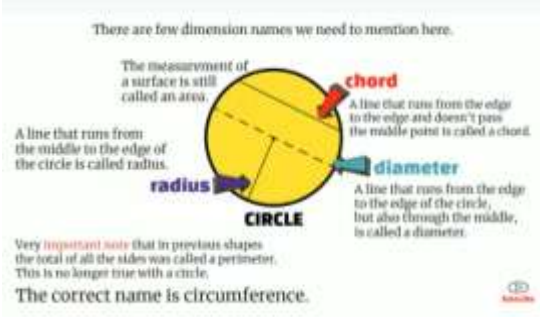

The dimension or line that runs from one corner of the square to the other is called the diagonal.
diagonal of a square
SQUARE
All sides within a square are equal and they are called just that.
sides
4a = perimeter
A sum or a total of all the sides is called a perimeter.
The corners of a square (or any other shape) are called vertices.
The area is always squared.
area - the measurement of a surface.
a²

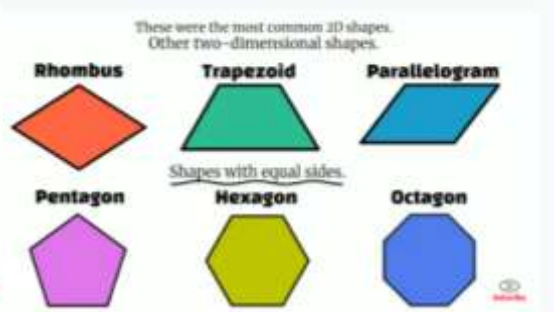

Parallel means having the same distance continuously between the lines.
RECTANGLE
The longer side:
length
The shorter side:
width
area
Sides opposite to each other are parallel to each other.
diagonal line
A perimeter = 2a + 2b

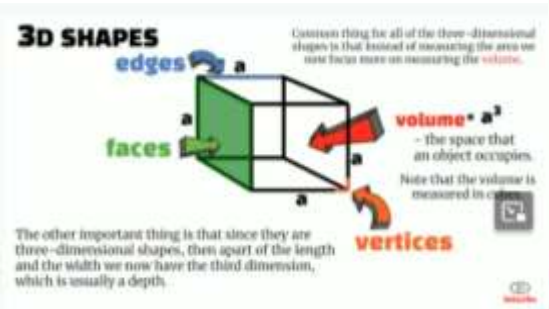

The tip of the triangle is called an apex.
TRIANGLE
Instead of a diagonal line there is a line that runs from the apex down to the base – it's called a height.
apex
The height line has to meet the base at a right angle.
We call this relationship a perpendicular.
It's a height of a triangle.
The height is perpendicular to the base.
The side that the triangle sits on is called a base.
base
The total of the sides is called a perimeter.
The measurement of a surface is called an area.

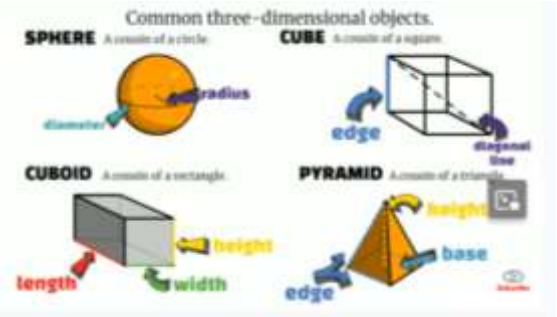

There are four different types of triangles.
1. Equilateral
All three sides and three angles are equal.
2. Isosceles
Two sides and two angles are equal.
3. Scalene
There are no equal sides nor equal angles.
4. Right-angled
One angle is a right angle.

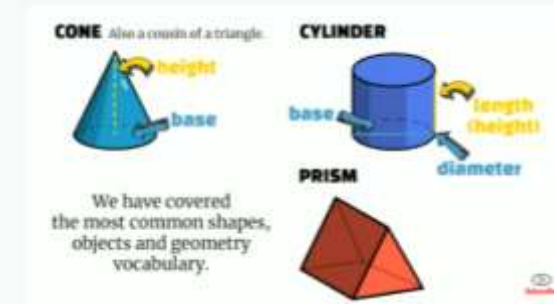

Right angle
Which is 90 degrees.
Acute angle
It is less than 90 degrees.
Obtuse angle
Straight angle
One that is 180 degrees.
Reflex angle
Full rotation


There are few dimension names we need to mention here.
The measurement of a surface is still called an area.
chord
A line that runs from the edge to the edge and doesn't pass the middle point is called a chord.
A line that runs from the middle to the edge of the circle is called radius.
radius
diameter
A line that runs from the edge to the edge of the circle, but also through the middle, is called a diameter.
CIRCLE
Very important note that in previous shapes the total of all the sides was called a perimeter. This is no longer true with a circle.
The correct name is circumference.


These were the most common 2D shapes.
Other two-dimensional shapes.
Rhombus
Trapezoid
Parallelogram
Shapes with equal sides.
Pentagon
Hexagon
Octagon


3D SHAPES
edges
a
faces
a
a
a
volume = a^3
- the space that an object occupies.
vertices
The other important thing is that since they are three-dimensional shapes, then apart of the length and the width we now have the third dimension, which is usually a depth.


Common three-dimensional objects.
SPHERE
radius
CUBE
edge
CUBOID
height
length
width
PYRAMID
base
edge


CONE Also a cousin of a triangle.
height
base
CYLINDER
base
length (height)
diameter
PRISM
We have covered the most common shapes, objects and geometry vocabulary.