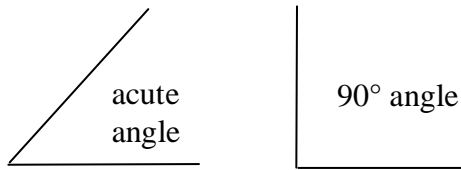


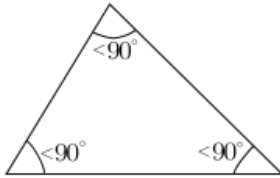
Algebra Geometry Glossary - Arabic

مسرد الهندسة الجبرية

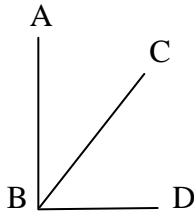
- 1) **acute angle** / الزاوية الحادة
an angle less than 90°



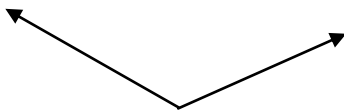
- 2) **acute triangle** / مثلث حاد الزوايا
a triangle where all angles are less than 90°



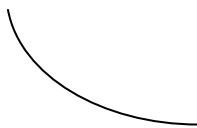
- 3) **adjacent angles** / الزوايا المتجاورة
angles that share a common leg
Example: $\angle ABC$ and $\angle CBD$ share the leg \overline{BC} .



- 4) **angle** / الزاوية
two lines, segments or rays with a common point that form an opening



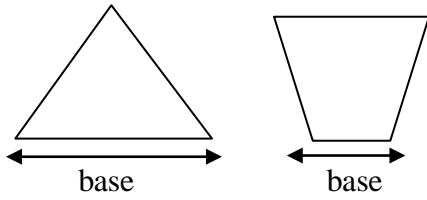
- 5) **arc** / القوس
part of a circle



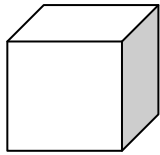
- 6) **area** / المساحة
a measure of the inside of a shape



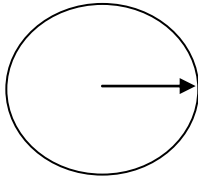
- 7) **base / القاعدة**
the bottom of a geometric shape



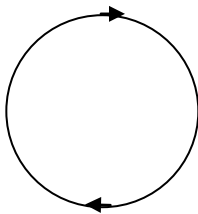
- 8) **box / الصندوق**
a rectangular shape with six sides



- 9) **circle / الدائرة**
a closed loop that is an equal distance from a center point



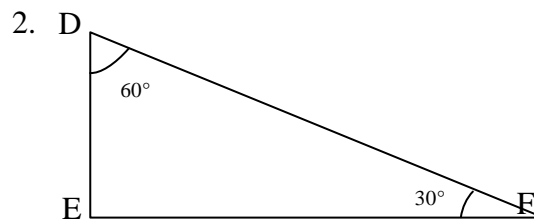
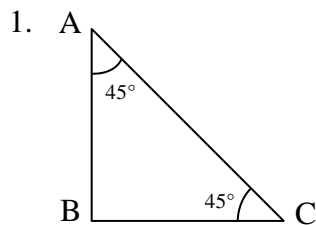
- 10) **circumference / محيط الدائرة**
the distance around the edge of a circle



- 11) **complimentary angles / الزاويتان المتتامتان**
two angles that total 90°

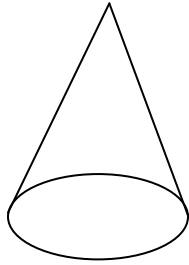
Example 1: $\angle A$ and $\angle C$ are complimentary because $45^\circ + 45^\circ = 90^\circ$

Example 2: $\angle D$ and $\angle F$ are complimentary because $60^\circ + 30^\circ = 90^\circ$



12) **cone** / المخروط

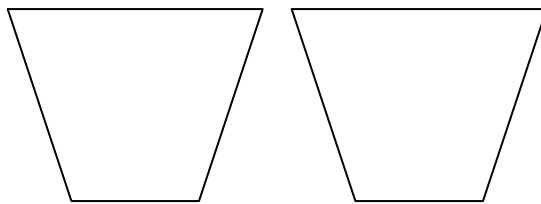
a geometric shape that tapers smoothly from a flat, round base to a point



13) **congruent** / الأشكال المتطابقة

two geometric shapes that have the same angles or size

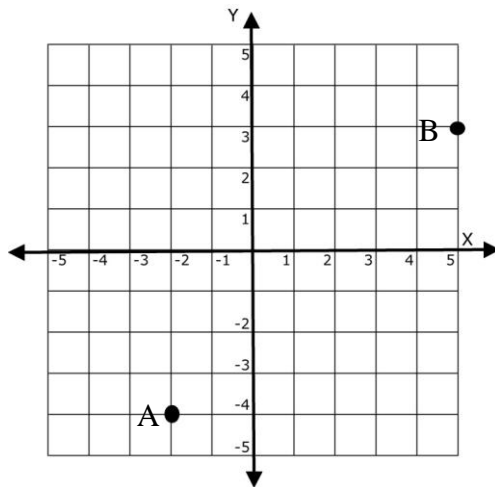
Example: These two shapes are congruent. They are the same size and have the same angles.



14) **coordinates** / الإحداثيات

a pair of numbers that locate points on a grid

Example: In this grid the coordinates of A are (-2, -4) and of B are (5, 3).



15) **coordinate geometry** / الهندسة الإحداثائية

geometry of points on a grid

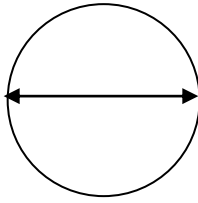
16) **cylinder** / الأسطوانة

a geometric shape that is circular with flat ends



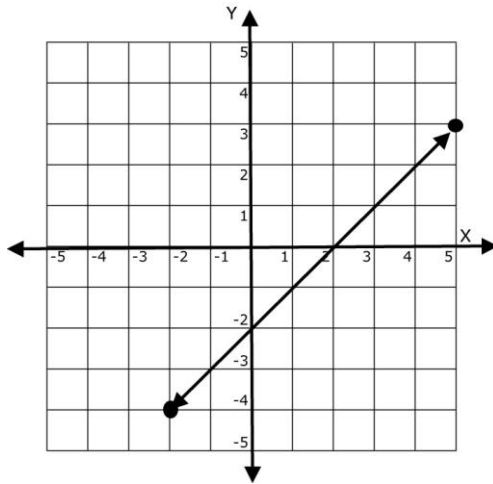
17) **diameter** / القطر

the distance across a circle through the center point



18) **distance between points** / المسافة بين النقاط

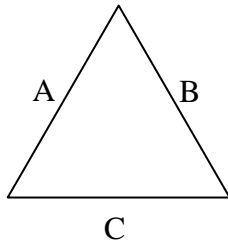
the space between points measured on a geometric grid



19) **equilateral triangle** / المثلث المتساوي الأضلاع

a triangle with all 3 sides of equal length

Example: Side A = side B = side C.



20) **equivalent** / مكافئ، معادل، مساو

equal to, the same as

21) **exponents** / الأس

a small number written to the right and above another number, to indicate the number of times to multiply it by itself

Example: $5^3 = 5 \times 5 \times 5$

22) **figure** / الشكل

a geometric shape

Example: A square or a circle is a figure.

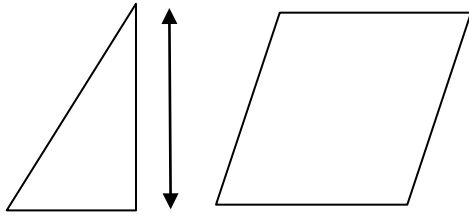
23) **formula / الصيغة**

a number sentence or equation

Example: The area of a rectangle = length x width.

24) **height / الارتفاع**

the distance from the bottom to the top of a figure



25) **horizontal / أفقي**

parallel to the horizon, across the page

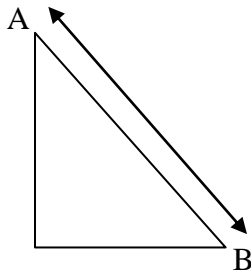
Example: This line is horizontal.



26) **hypotenuse / وتر المثلث القائم الزاوية**

the long side of a right triangle

Example: Side \overline{AB} is the hypotenuse.



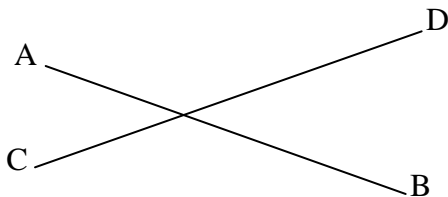
27) **identical / مطابق، متطابق، مماثل**

the same

28) **intersecting lines / خطان متقاطعان**

two lines that cross

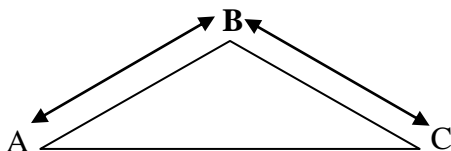
Example: Segment \overline{AB} intersects segment \overline{CD} .



29) **isosceles triangle / المثلث المتساوي الساقين**

a triangle with 2 equal sides

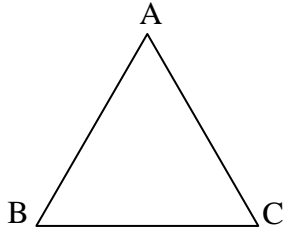
Example: In this triangle side \overline{AB} equals side \overline{BC} .



30) **legs** / الأضلاع

the lines that form a triangle

Example: \overline{AB} is one leg, \overline{AC} is another leg and \overline{BC} is the third leg.



31) **length** / الطول

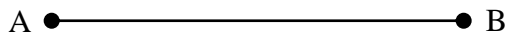
the distance from one end point to another the longer way



32) **line segment** / خط محدد الطول

a line with two end points

Example: \overline{AB} is a line segment.



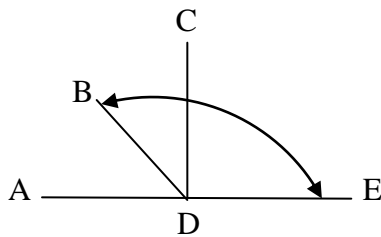
33) **math expression** / التعبير الرياضي

number sentence or formula

34) **obtuse angle** / الزاوية المنفرجة

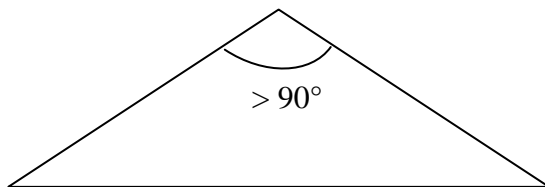
an angle that is larger than 90° but less than 180°

Example: $\angle BDE$ is obtuse because it's larger than 90° and less than 180° .



35) **obtuse triangle** / المثلث منفرج الزاوية

a triangle with one angle larger than 90°



36) **order of operations** / ترتيب العمليات

the correct order to do math operations in a formula

Example: Do multiplication and division first, and then do addition and subtraction, unless they are in parentheses ().

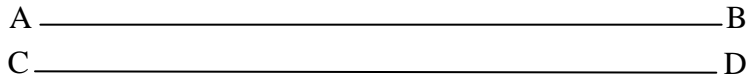
To solve the problem $3 + 4 \times 2 = N$ first do step 1: $3 + (4 \times 2) = N$.

then do step 2: $3 + 8 = 11$.

37) **parallel lines** / الخطوط المتوازية

two lines that are parallel and equidistant

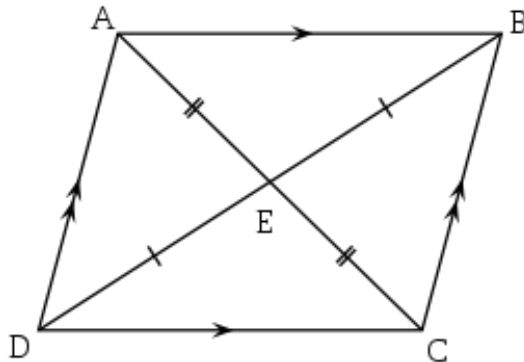
Example: Line \overline{AB} and line \overline{CD} are parallel.



38) **parallelogram** / متوازي الأضلاع

a quadrilateral with both pairs of opposite sides parallel and equal in length.

Example: Sides \overline{AB} and \overline{DC} are parallel and equal in length, and sides \overline{AD} and \overline{BC} are also parallel and equal in length.

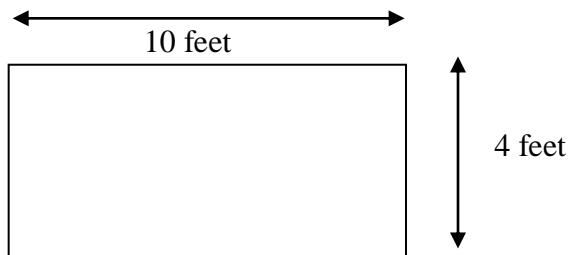


39) **perimeter** / المحيط

the distance around a shape

Example: The perimeter of a rectangle = $2 \times \text{length} (10 \text{ feet}) + 2 \times \text{width} (4 \text{ feet})$

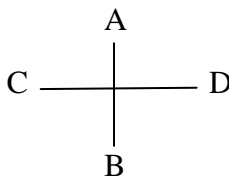
The perimeter of this rectangle is 28 feet.



40) **perpendicular lines** / المستقيمت المتعامدة

two lines that cross forming 90° angles

Example: Line \overline{AB} is perpendicular to line \overline{CD} .

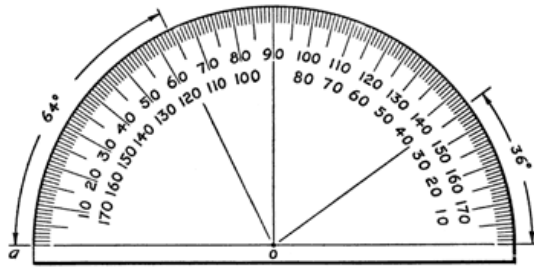


41) **pi** / (ط) النسبة التقريبية

the mathematical constant value is approximately 3.14

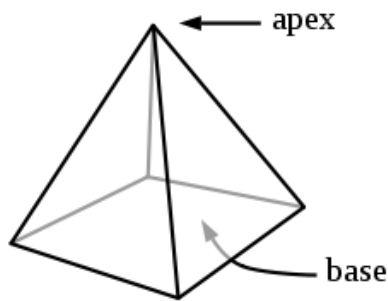
42) **protractor** / المنقلة

an instrument used in drawing and measuring angles



43) **pyramid** / الهرم

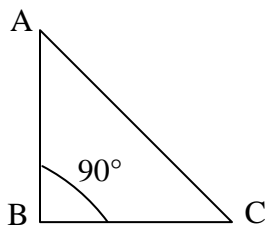
a solid object where the base is usually a square and triangular sides meet at the apex (top).



44) **Pythagorean relationship** / علاقة فيثاغورس

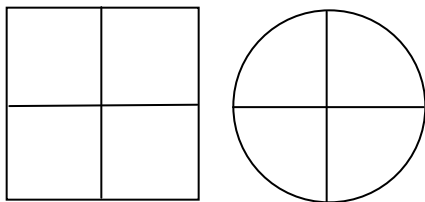
The formula for right triangles states that the square of the longest side (the hypotenuse) is equal to the square of the other 2 sides.

Example: $\overline{AB}^2 + \overline{BC}^2 = \overline{AC}^2$



45) **quadrant** / ربع الدائرة

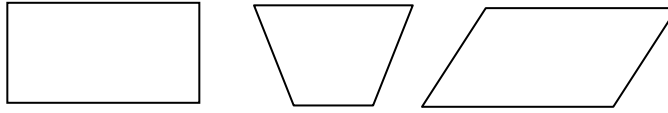
any of the 4 areas created by dividing a square or circle with horizontal and vertical lines



46) **quadrilateral** / ربااعي الأضلاع

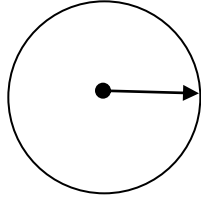
a four sided shape

Example: These are all quadrilaterals.



47) **radius** / نصف القطر

the distance from the center to the edge of a circle



48) **ray** / شعاع

a line with a starting point but no ending point.



49) **rectangle** / مستطيل

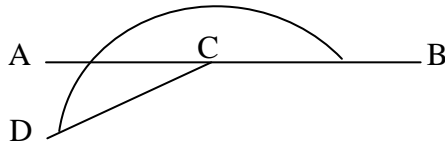
a 4-sided shape where all interior angles are 90°



50) **reflex angle** / الزاوية المنعكسة

an angle more than 180°

Example: $\angle DCB$ is a reflex angle.



51) **repeating pattern** / نمط متكرر

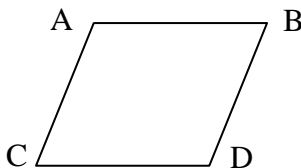
numbers that follow in order from a mathematical operation

Examples: 1, 3, 5, 7, 9 etc. is pattern, and so is 2, 4, 8, 16, 32, etc.

52) **rhombus** / المَعِين

a quadrilateral with all four sides equal in length

Example: In this figure side $\overline{AB} = \text{side } \overline{BD} = \text{side } \overline{AC} = \text{side } \overline{CD}$.



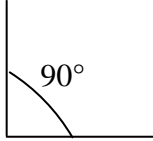
53) **reciprocal** / مقلوب العدد

the reciprocal of a number is 1 divided by that number.

Example: $1 \div 2 = \frac{1}{2}$. The reciprocal of 2 is $\frac{1}{2}$.

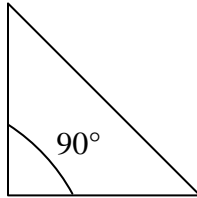
54) **right angle** / الزاوية القائمة

a 90° angle



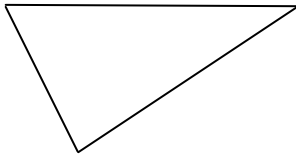
55) **right triangle** / المثلث قائم الزاوية

a triangle with one 90° angle



56) **scalene triangle** / المثلث مختلف الأضلاع

a triangle where all three sides are different in length



57) **sequence** / المتوالية

numbers in a pattern

Example: 2, 4, 6, 8, etc.

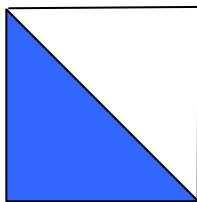
58) **set of numbers** / مجموعة الأرقام

a group of numbers used in an equation

59) **shaded** / مظلل

colored or darkened

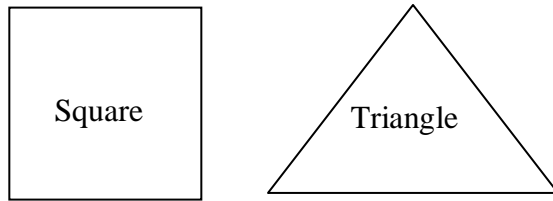
Example: Half of the square is shaded.



60) **side / أضلاع، ضلع**

one part of the geometric shape

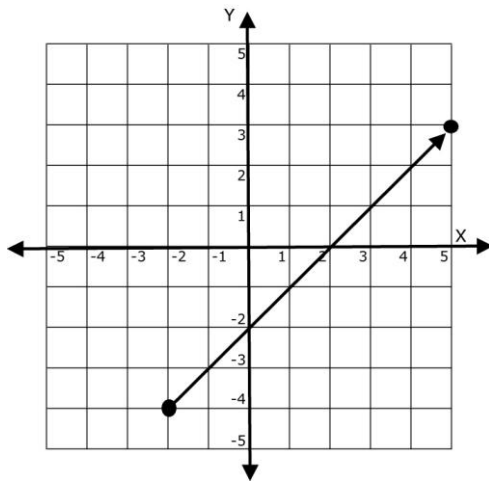
Example: A square has 4 sides and a triangle has 3 sides.



61) **slope of a line / ميل الخط المستقيم**

an expression of the amount a line goes up or down as a ratio of the change in y over the change in x

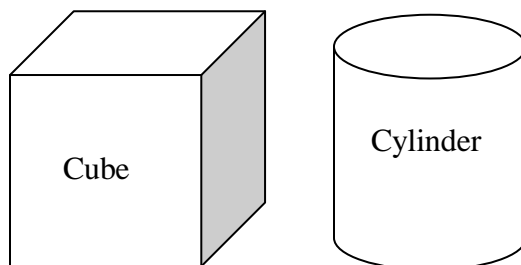
Example: This line goes up 1 on the y axis for every 1 on the x axis. The slope is 1:1.



62) **solid / مجسم**

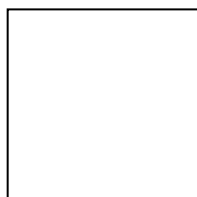
a three dimensional geometric shape

Example: A cube is a solid and a cylinder is a solid.



63) **square / المربع**

a four sided shape with four 90° angles and sides of equal length



64) **square root** / الجذر التربيعي

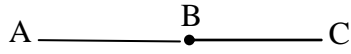
a number that when multiplied by itself equals a given number

Example: 5 is the square root of 25 because $5 \times 5 = 25$

65) **straight angle** / الزاوية المستقيمة

an angle of 180°

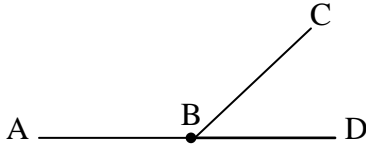
Example: $\angle ABC$ is 180°



66) **supplementary angles** / الزاويتان المتكاملتان

two angles that total 180°

Example: $\angle ABC + \angle CBD = 180^\circ$



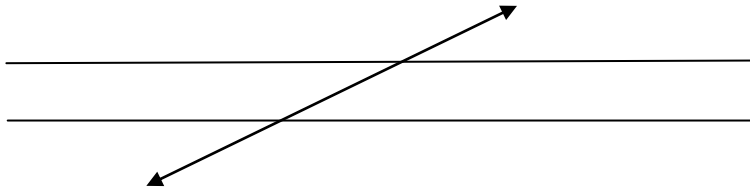
67) **the power of x** / قوة العدد

indicating the number of times to multiply a number by itself

Example: 2 to the power of 3 = $2^3 = 8$

68) **transversal** / خط مستعرض أو قاطع

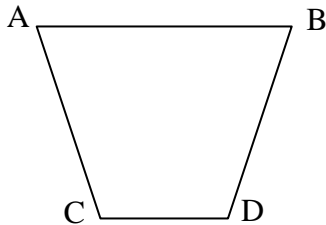
a line that cuts across two or more (usually parallel) lines



69) **trapezoid** / شبه المنحرف

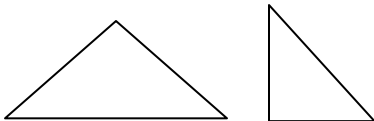
A quadrilateral with only one pair of parallel sides

Example: Side \overline{AB} is parallel to side \overline{CD} .



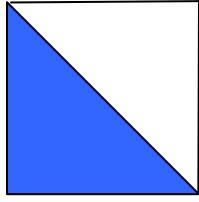
70) **triangle** / المثلث

a three sided shape

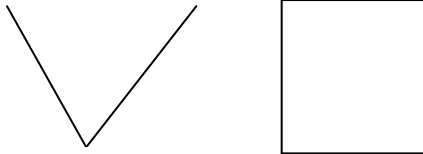


71) **true / صحيح**
a mathematically correct answer

72) **unshaded / غير مظلّل**
not colored or darkened
Example: Half of the square is unshaded.

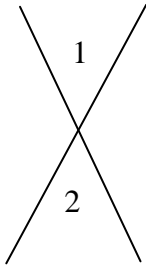


73) **vertex / رأس**
the common end points of two lines
Example: An angle has one vertex, a square has 4 vertices.

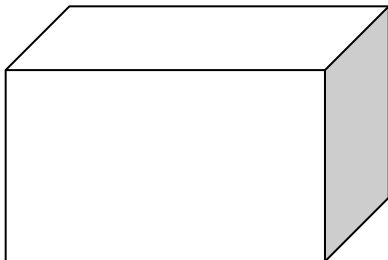


74) **vertical / رأسي، عمودي**
up and down in direction

75) **vertical angles / زاويتان رأسيّتان: زاويتان متقابلتان بالرأس**
two non-adjacent angles with the same measure, formed when two straight lines cross
Example: $\angle 1$ and $\angle 2$ are vertical angles.



76) **volume / الحجم**
the amount of space inside a three dimensional geometric shape
Example: The volume of a rectangular solid is the length x width x height.



77) **width** / العرض

the distance from side to side the shorter way

