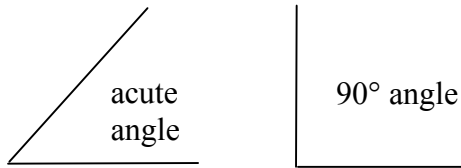
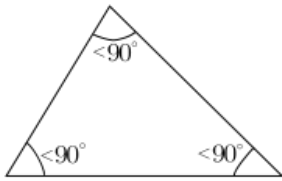


Algebra Geometry Glossary - Hmong
Lus Txhais rau Kev Ua Zauv Hom Algebra thiab Geometry

- 1) **acute angle / lub ces kaum me dua 90°**
an angle less than 90°

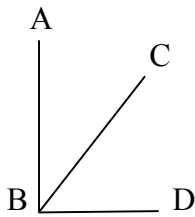


- 2) **acute triangle / daim duab peb fab uas nws peb ceg kaum me dua 90°**
a triangle where all angles are less than 90°

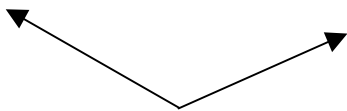


- 3) **adjacent angles / ob ceg kaum uas koom siv ib txoj kab**
angles that share a common leg

Example: $\angle ABC$ and $\angle CBD$ share the leg \overline{BC} .



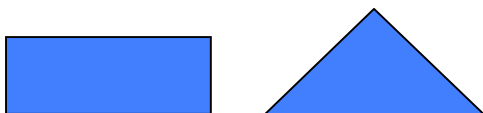
- 4) **angle / lub ces kaum**
two lines, segments or rays with a common point that form an opening



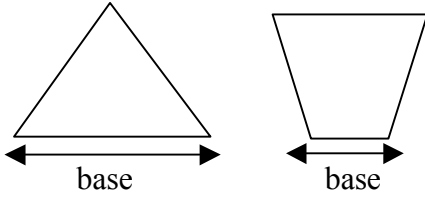
- 5) **arc / ib txoj kab nyuag nkhaus vos**
part of a circle



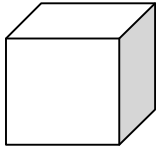
- 6) **area / lub cheeb tsam**
a measure of the inside of a shape



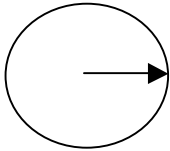
- 7) **base / lub qab**
the bottom of a geometric shape



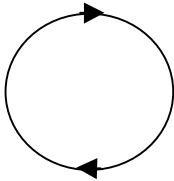
- 8) **box / lub thawv**
a rectangular shape with six sides



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



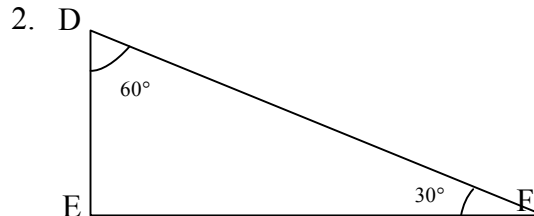
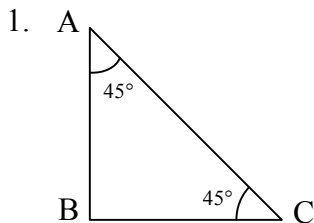
- 10) **circumference / qhov ntsuas txoj kab ncig ntawm lub voj voog**
the distance around the edge of a circle



- 11) **complimentary angles / ob ceg kaum uas ua ke yog 90°**
two angles that total 90°

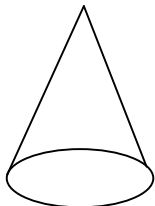
Example 1: $\angle A$ and $\angle C$ are complimentary because $45^\circ + 45^\circ = 90^\circ$

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



- 12) **cone / daim duab uas lub qab tiaj tiaj thiab kheej kheej tab sis lub cev nqia zuj zus txog lub ntsis uas zuag zuag**

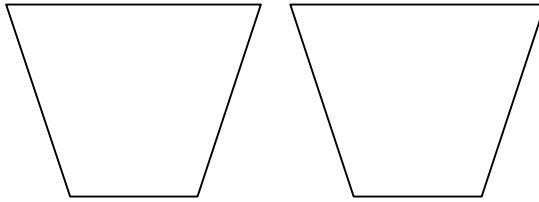
a geometric shape that tapers smoothly from a flat, round base to a point



13) **congruent / ob daim duab uas sib luag thiab cov ces kaum zoo ib yam**

two geometric shapes that have the same angles or size

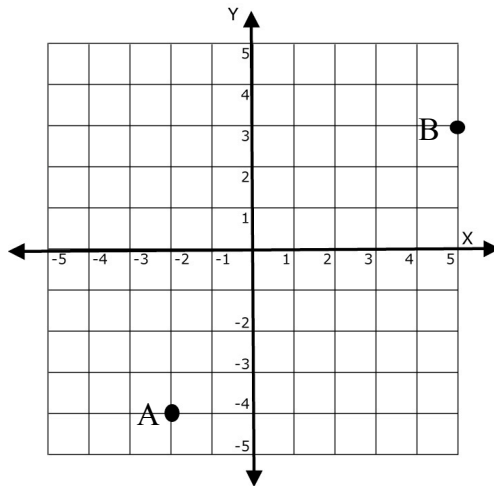
Example: These two shapes are congruent. They are the same size and have the same angles.



14) **coordinates / ib khub zauv uas qhia qhov chaw uas txoj kab rov ntsug thiab txoj kab tav toj sib tshuam**

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 / kev ua zauv txog tej khub zauv uas qhia qhov chaw uas txoj kab rov ntsug thiab txoj kab tav toj sib tshuam**

geometry of points on a grid

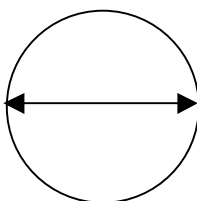
16) **cylinder / ib thooj uas kheej kheej thiab ob tog tiaj tus**

a geometric shape that is circular with flat ends

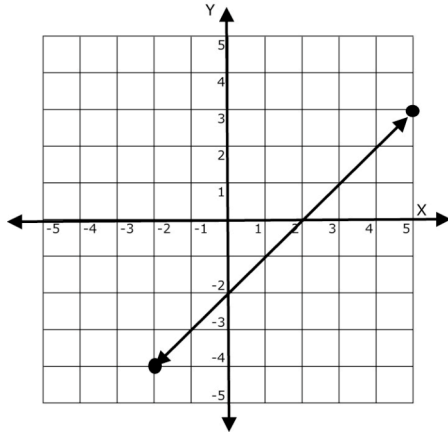


17) **diameter / qhov ntsuas txoj kab uas txiav hauv plawv lub voj voog**

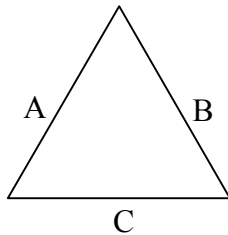
the distance across a circle through the center point



- 18) **distance between points / qhov deb nruab nrab ntawm ob qho chaw**
the space between points measured on a geometric grid



- 19) **equilateral triangle / daim duab peb fab sib luag**
a triangle with all 3 sides of equal length
Example: Side A = side B = side C.



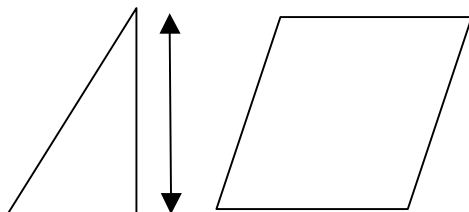
- 20) **equivalent / sib npaug, sib luag, sib txig**
equal to, the same as

- 21) **exponents / teg tug me nyuam zauv uas muab sau rau ntawm lwm tus zauv saum toj me ntsis kom thiaj qhia saib yuav tsum muab tus zauv thib ob ntawd xam ua npaug ntawm nws tus kheej pes tsawg zaus**
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 / daim duab**
a geometric shape
Example: A square or a circle is a figure.

- 23) **formula / tus qauv**
a number sentence or equation
Example: The area of a rectangle = length x width.

- 24) **height / qhov siab**
the distance from the bottom to the top of a figure



25) **horizontal / tav toj**

parallel to the horizon, across the page

Example: This line is horizontal.

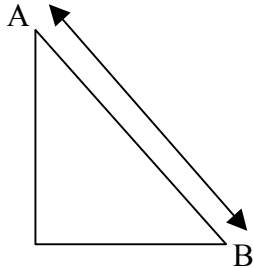


26) **hypotenuse / fab ntev ntawm ib daim duab peb fab uas muaj ib ceg kaum uas**

yog 90°

the long side of a right triangle

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



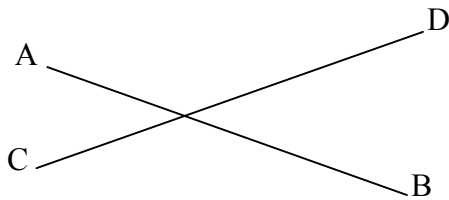
27) **identical / zoo ib yam**

the same

28) **intersecting lines / ob txoj kab sib tshuam**

two lines that cross

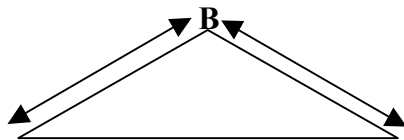
Example: Segment \overline{AB} intersects segment \overline{CD} .



29) **isosceles triangle / daim duab peb fab uas muaj ob fab uas ntev ib yam**

a triangle with 2 equal sides

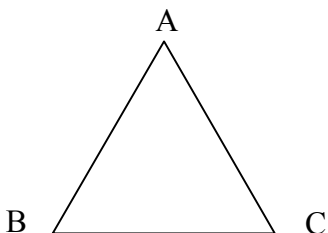
Example: In this triangle side \overline{AB} equals side \overline{BC} .



30) **legs / peb txoj kab uas yog peb fab ntawm ib daim duab peb fab**

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 / qhov ntev**

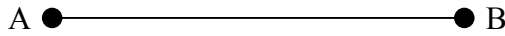
the distance from one end point to another the longer way



32) **line segment / txoj kab uas muaj tog hauv paus tog ntsis**

a line with two end points

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



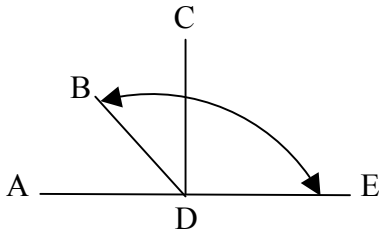
33) **math expression / txoj kab zauv**

number sentence or formula

34) **obtuse angle / lub ces kaum loj tshaj 90° tab sis tsawg dua 180°**

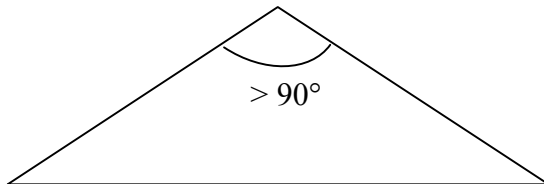
an angle that is larger than 90° but less than 180°

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



35) **obtuse triangle / daim duab peb fab uas muaj ib ceg kaum uas loj dua 90°**

a triangle with one angle larger than 90°



36) **order of operations / tus txheej txheem ua zauv**

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 ().

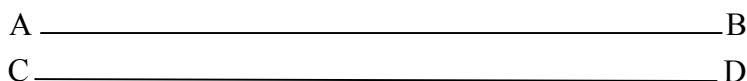
To solve the problem $3 + 4 \times 2 = N$ first do step 1: $3 + (4 \times 2) = N$.

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

37) **parallel lines / ob txoj kab mus ib seem**

two lines that are parallel and equidistant

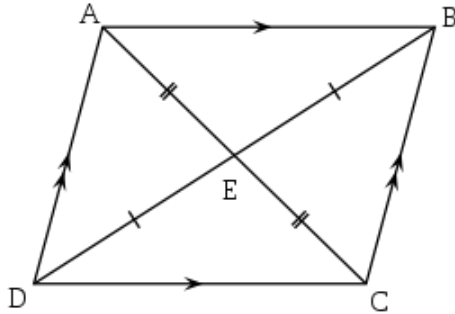
Example: Line \overline{AB} and line \overline{CD} are parallel.



38) **parallelogram / daim duab uas muaj plaub fab thiab ob sab nyob sib ncag mas mus sib raws ua ib seem**

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.

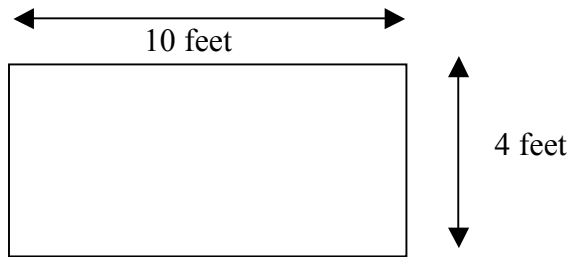


39) **perimeter / qhov puag ncig**

the distance around a shape

Example: The perimeter of a rectangle = 2 x length (10 feet) + 2 x width (4 feet)

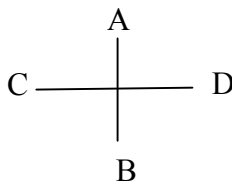
The perimeter of this rectangle is 28 feet.



40) **perpendicular lines / ob txoj kab sib tshuam es ua plaub ceg kaum uas muaj 90° tib si**

two lines that cross forming 90° angles

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

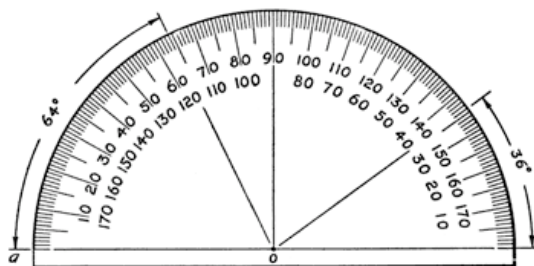


41) **pi (π) / pi (tus zauv uas yog kwv yees li 3.14)**

the mathematical constant value is approximately 3.14

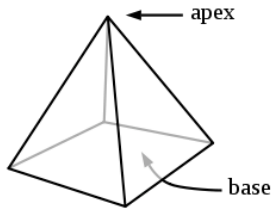
42) **protractor / tus pas kos los yog ntsuas ces kaum**

an instrument used in drawing and measuring angles



43) **pyramid / daim duab uas hauv qab xwm fab es plaub sab yog duab peb fab uas sib tshuam rau ntawm lub ntsis zuag zuag**

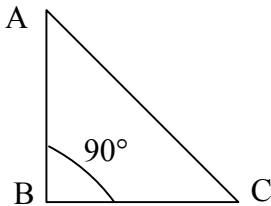
a solid object where the base is usually a square and triangular sides meet at the apex (top).



44) **Pythagorean relationship / Pythagorean kev txheeb ze**

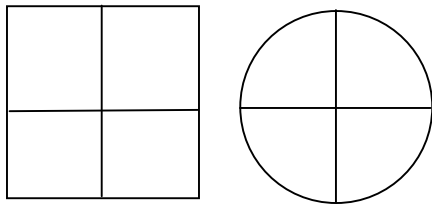
The formula for right triangles states that the square of the longest side (the hypotenuse) is equal to the square of the other 2 sides.

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



45) **quadrant / ib feem plaub ntawm ib daim duab**

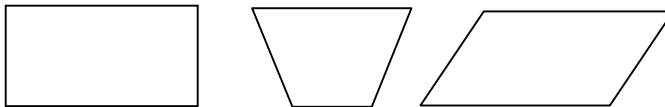
any of the 4 areas created by dividing a square or circle with horizontal and vertical lines



46) **quadrilateral / daim duab uas muaj plaub fab**

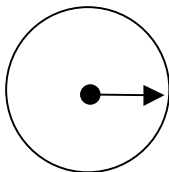
a four sided shape

Example: These are all quadrilaterals.



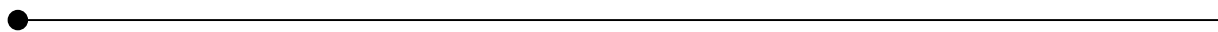
47) **radius / qhov deb txij hauv plawv lub voj voog mus rau tom ntug**

the distance from the center to the edge of a circle



48) **ray / txoj kab uas muaj tog hauv paus tab sis tsis muaj qhov ntsis**

a line with a starting point but no ending point.



49) **reciprocal / yog muab tus zauv 1 faib tawm ntawm ib tug zauv twg**
the reciprocal of a number is 1 divided by that number.

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

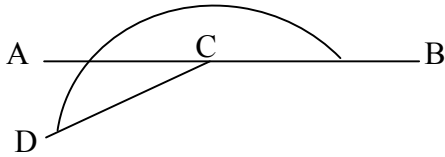
50) **rectangle / daim duab plaub fab es ob fab ntev ob fab luv**
a 4-sided shape where all interior angles are 90°



51) **reflex angle / lub ces kaum loj tshaj 180°**

an angle more than 180°

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

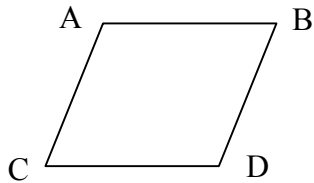


52) **repeating pattern / tus qauv uas ua ib qho kev ua zauv li qub tas li**
numbers that follow in order from a mathematical operation

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

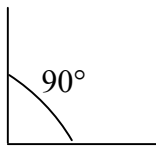
53) **rhombus / daim duab plaub fab sib luag zog thiab mus sib raws ntsaws**
a quadrilateral with all four sides equal in length

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



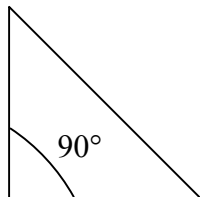
54) **right angle / lub ces kaum 90°**

a 90° angle

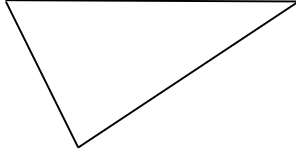


55) **right triangle / daim duab peb fab uas muaj ib ceg kaum 90°**

a triangle with one 90° angle



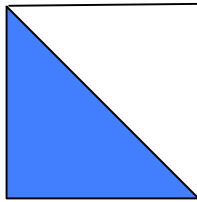
- 56) **scalene triangle / daim duab peb fab uas tag nrho peb fab ntev sib txawv**
a triangle where all three sides are different in length



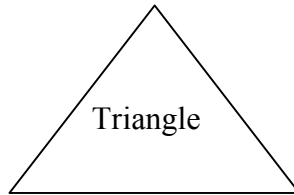
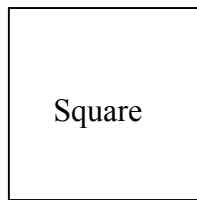
- 57) **sequence / cov zauv hauv ib tug qauv**
numbers in a pattern
Example: 2, 4, 6, 8, etc.

- 58) **set of numbers / ib pawg zauv**
a group of numbers used in an equation

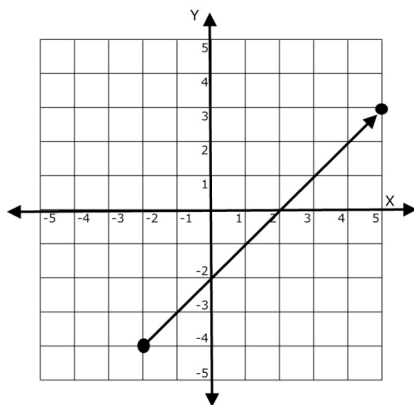
- 59) **shaded / qhov muaj xim**
colored or darkened
Example: Half of the square is shaded.



- 60) **side / fab**
one part of the geometric shape
Example: A square has 4 sides and a triangle has 3 sides.



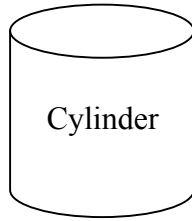
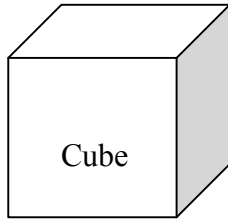
- 61) **slope of a line / txoj kab nce toj los yog nqis hav li cas**
an expression of the amount a line goes up or down as a ratio of the change in y over the change in x
Example: This line goes up 1 on the y axis for every 1 on the x axis. The slope is 1:1.



62) **solid / daim duab uas muaj qhov siab, qhov ntev, thiab qhov dav**

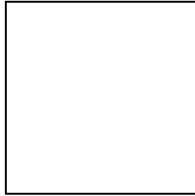
a three dimensional geometric shape

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



63) **square / daim duab plaub fab xwm fab**

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



64) **square root / ib tug zauv uas thaum muab xam ua npaug ntawm nws tus kheej yog lwm tus zauv uas teem tseg**

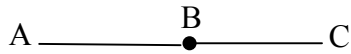
a number that when multiplied by itself equals a given number

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

65) **straight angle / lub ces kaum 180°**

an angle of 180°

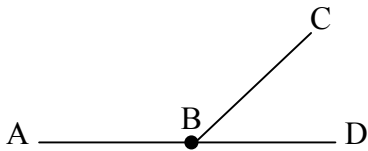
Example: $\angle ABC$ is 180°



66) **supplementary angles / ob ceg kaum uas ua ke yog 180°**

two angles that total 180°

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



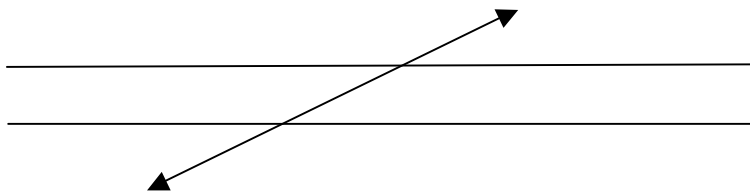
67) **the power of x / qhov qhia saib yuav tsum muab ib tug zauv twg xam ua npaug ntawm nws tus kheej pes tsawg zaus**

indicating the number of times to multiply a number by itself

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

68) **transversal - txoj kab uas txiav lwm ob txoj kab uas feem ntau mus ua ib seem**

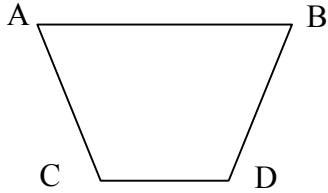
a line that cuts across two or more (usually parallel) lines



69) **trapezoid / daim duab plaub fab uas ob fab mus sib raws rau ib seem**

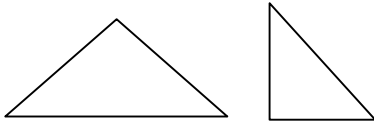
A quadrilateral with only one pair of parallel sides

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



70) **triangle / daim duab peb fab**

a three sided shape



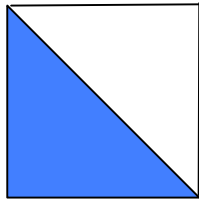
71) **true / tseeb**

a mathematically correct answer

72) **unshaded / tsis muaj xim**

not colored or darkened

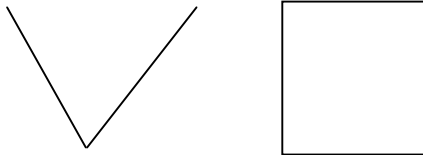
Example: Half of the square is unshaded.



73) **vertex / qhov chaw ob txoj kab sib tshuam**

the common end points of two lines

Example: An angle has one vertex, a square has 4 vertices.



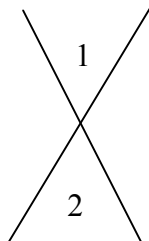
74) **vertical / rov ntsug**

up and down in direction

75) **vertical angles / ob ceg kaum uas sib npaug es ib lub rov saud ib lub rov haud**

two non-adjacent angles with the same measure, formed when two straight lines cross

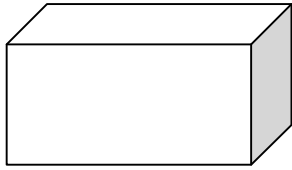
Example: $\angle 1$ and $\angle 2$ are vertical angles.



76) **volume / qhov khoob loj li cas**

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 / qhov dav**

the distance from side to side the shorter way

