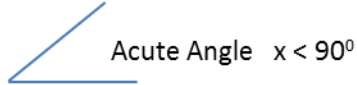


Geometry

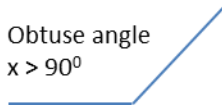
Lesson One - Classifying Angles:



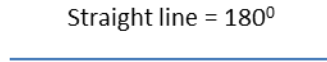
Right Angle = 90°



Acute Angle $x < 90^\circ$

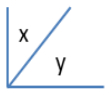


Obtuse angle
 $x > 90^\circ$

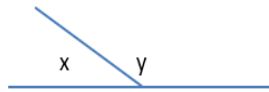


Straight line = 180°

Complementary/ Supplementary Angles:



Complementary Angles – two angles that have a sum of 90°
 $x + y = 90$

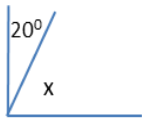


Supplementary Angles – two angles that have a sum of 180°
 $x + y = 180$

LearnZillion video: <https://learnzillion.com/lessons/2757-write-and-solve-equations-using-complementary-and-supplementary-angles>

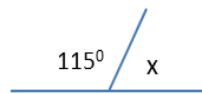
Try It Out:

Name the angles (complementary or supplementary) and find the missing angle measure.



Angles: _____

$x =$ _____

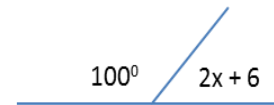


Angles: _____

$x =$ _____

Vertical/ Adjacent Angles:

Adjacent Angles – Angles that are side-by-side and share a common vertex and side.



These are adjacent supplementary angles.

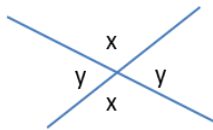
$$100 + 2x + 6 = 180$$

$$106 + 2x = 180$$

$$2x = 74$$

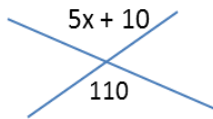
$$x = 37$$

Vertical Angles – Angles that share a vertex, and are opposite sides from each other. Vertical angles are equal.



Angles x are vertical and equal.

Angles y are vertical and equal.



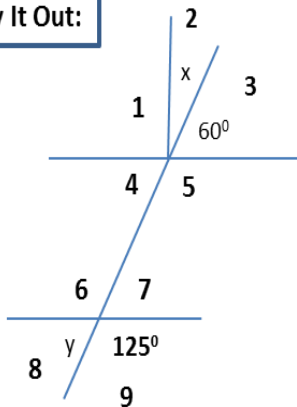
These are vertical angles, so they are equal. You can solve for x by setting them equal to each other.

$$5x + 10 = 110$$

$$5x = 100$$

$$x = 20$$

Try It Out:



Using the figure to the left, find the following: ($\angle 2 + \angle 3 = 90^\circ$)

1) $x =$ _____

5) Vertical Angles _____

2) $y =$ _____

6) $\angle 6 =$ _____

3) A pair of Supplementary Angles: _____

7) $\angle 7 =$ _____

4) A pair of Complementary Angles: _____

Lesson Two – Perimeter, Circumference, and Area:

LearnZillion video: <https://learnzillion.com/lessons/818-find-the-circumference-of-a-circle>

LearnZillion video: <https://learnzillion.com/lessons/3742>

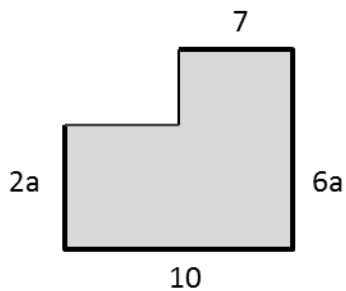
LearnZillion video: <https://learnzillion.com/lessons/819-find-the-area-of-a-circle>

LearnZillion video: <https://learnzillion.com/lessons/818-find-the-circumference-of-a-circle>

Find the area of irregular figures/ YouTube video:

<https://www.youtube.com/watch?v=461qf7N7Qbg>

Try It Out:



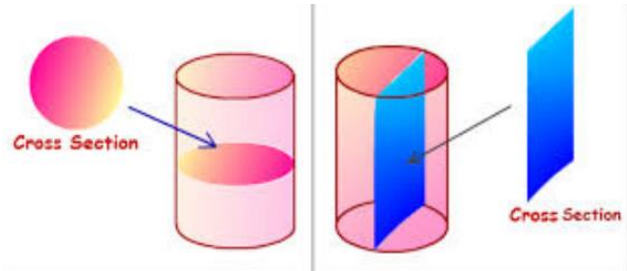
- 1) Find the two missing side lengths.
- 2) Write an expression for the perimeter (simplify it).
- 3) What is the perimeter if $a = 2$?
- 4) Write an expression for the area (simplify it).
- 5) What is the area if $a = 2$?

Practice – Finding area, circumference, and perimeter of geometric shapes:

<http://www.aaamath.com/geo.htm>

Lesson Three – Cross Sections:

Cross section – When a three-dimensional figure and a plane intersect, the intersection is called a cross section.



YouTube video: <https://www.youtube.com/watch?v=775qZ8NqidI>

Practice – Cross Sections: <http://www.ixl.com/math/geometry/cross-sections-of-three-dimensional-figures>

Lesson Four – Volume and Surface Area

Volume of Prisms Video: http://www.mathplayground.com/mv_volume_prisms.html

Surface Area of Prisms Video: <https://learnzillion.com/lessons/1222-find-surface-area-of-rectangular-prisms>

Practice – Finding volume and surface area of 3D figures:
<http://www.onlinemathlearning.com/volume-games.html>

Additional Resources:

****Parent Guide:** <http://www.hallco.org/boe/site/wp-content/uploads/2014/03/Parent-Unit-5-Guide-for-7th-Grade-Math.doc>

****GA Virtual Learning** (please go to the link, and click on “Geometric Shapes,” “Three Dimensional Cross Sections,” and “Geometric Angles and Shapes”):

<http://www.gavirtuallearning.org/Resources/SharedMS7thMath.aspx>