

Name:


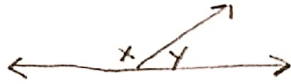




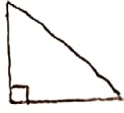


Key

Date:

Class Period:

Unit 4 Mid-Unit Study Guide

1. Complete the table below.

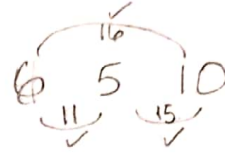
Type of Angle or Triangle	Attributes of this Figure	Draw a picture representation.
Complementary angles	equal 90°	
Supplementary angles	equal 180°	
Vertical angles	Two angles that share same vertex. They are equal.	
Straight angle	A line of angles that equal 180° .	
Right angle	One angle that equals 90°	
Isosceles Triangle	A triangle with 2 sides and 2 angles the same.	
Right Triangle	A triangle with one 90° angle.	
Scalene Triangle	A triangle with no sides the same length.	
Acute Triangle	A triangle with all angles less than 90° .	

*Triangles' angles always add up to 180.

2. Name three lengths that CAN make a triangle: 6 5 10

Why do these lengths create a triangle?

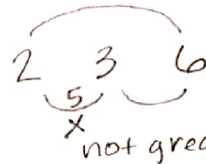
Each combination of 2 of the numbers is greater than the third.



3. Name three lengths that WILL NOT make a triangle: 2 3 6

Why do these lengths NOT create a triangle?

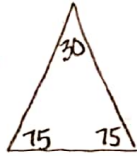
2 and 3 are not greater than 6.



4. If an isosceles triangle has only one 30° angle, what are the measures of the other two angles?

$$180 - 30 = 150$$

$$150 \div 2 = 75$$



Since isosceles triangles have 2 sides and 2 angles the same, subtract 30 from 180 which equals 150. Divide that by 2 and you get 75.

5. What is the value of x in the figure below:

This is a complementary pair of angles which equals 90° .

$$5x + 60 = 90$$

$$5x + 60 = 90$$

$$-60 \quad -60$$

$$\frac{5x}{5} = \frac{30}{5}$$

$$x = 6$$

