Name:_____ Date:_____

Math 8 Warm-up Week_____

Monday

1. Solve, then answer the questions below.

a. $-2x+9-3x=-5x+3$

$-5x+9=-5x+3$

$+5x \qquad +5x$

$9=3$

b. How many solutions does this equation have?

No Solution

2. Solve, then answer the questions below.

a. $3.7+2.5x=4.5x-12.3$

$-2.5x \quad -2.5x$

$3.7 = 2x-12.3$

$+12.3 \qquad +12.3$

$\frac{16}{2} = \frac{2x}{2}$

b. How many solutions does this equation have?

$x=8$

Tuesday

1. Solve, then answer the questions below.

a. $4x-18=x-18+3x$

b. How many solutions does this equation have?

2. Solve, then answer the questions below.

a. two times a number minus six is eight less than twice a number

b. How many solutions does this equation have?

Wednesay

1. Solve, then answer the questions below.

a. $-x+9-4x=-5(x+2)$

b. How many solutions does this equation have?

2. Solve, then answer the questions below.

a. $\frac{1}{2}(8x-20)=\frac{1}{4}(12x+32)$

b. How many solutions does this equation have?

Thursday

1. Solve, then answer the questions below.

a. $-6(x-\frac{1}{2})=3x+3-9x$

b. How many solutions does this equation have?

2. Solve, then answer the questions below.

a. four more than a number is fourteen less than three times the number

b. How many solutions does this equation have?

Friday

1. Solve, then answer the questions below.

a. $4x-8=6x+3$

2. Solve, then answer the questions below.

a. $\frac{1}{3}(-6x-9)=-3x-15-2x$

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"I Can" Statements Grade 8

Unit 2: Geometry

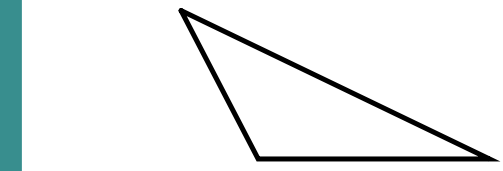
I can use informal arguments to establish facts about the angle sum and exterior angle of triangles, and about the angles created when parallel lines are cut by a transversal. (8.G.5)

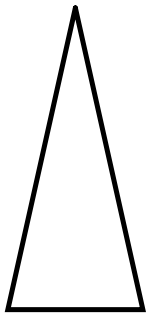
- I can prove that the sum of all three angles of any triangle equals 180 degrees
- I can prove that the sum of the exterior angle and the corresponding interior angle of a triangle equals 180 degrees
- I can prove why corresponding, vertical, alternate interior, and alternate exterior angles are congruent when 2 parallel lines are cut by a transversal
- I can prove why adjacent angles are supplementary when two parallel lines are cut by a transversal

I can show why similar shapes must have congruent corresponding angles, but the corresponding sides are proportional. (8.G.5)

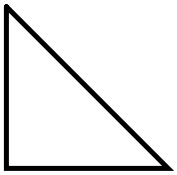
Classifying Triangles:

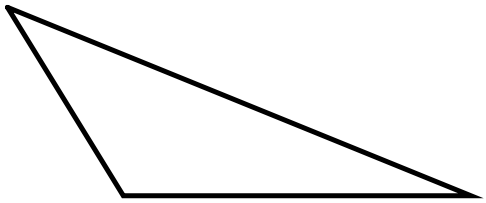
Classification by sides:

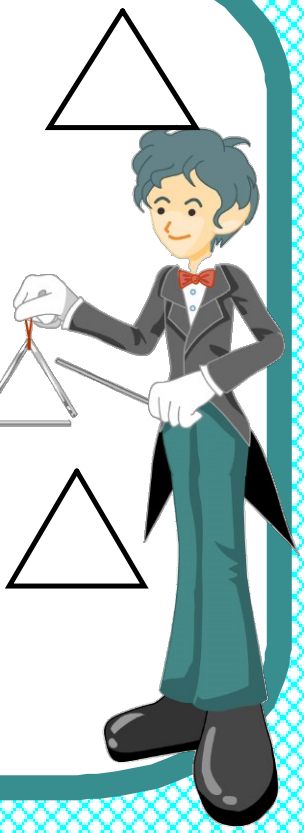




Classification by angles:

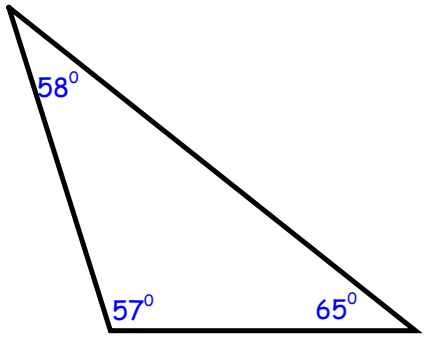




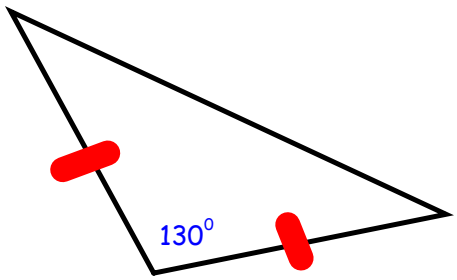


Example One:

when classifying, you need to be as specific as possible!



Example Two:



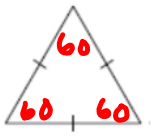
Name: _____ **Class:** _____

M8-U2: Notes #1 – Triangle & Angle Facts **Date:** _____

Triangle:

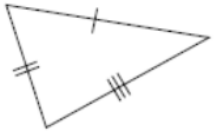
The sum of the measures of the angles add up to 180°.

Notation for Angles and Sides:



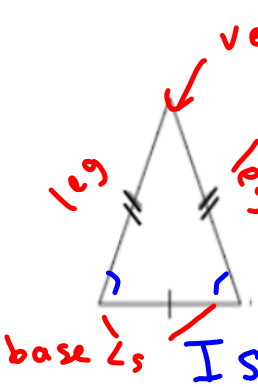
Equilateral

* All 3 sides =
* All 3 angles =



Scalene

*All sides different
*All angles different



Isosceles

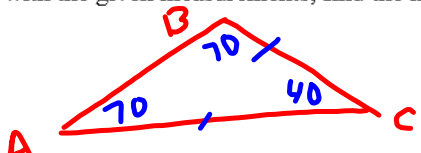
* 2 sides =
* 2 angles =

For #1-2: Draw and label a triangle with the given measurements, find the missing angle.

#1. m ∠A = 70 °

m ∠B = 70°

m ∠C = 40°



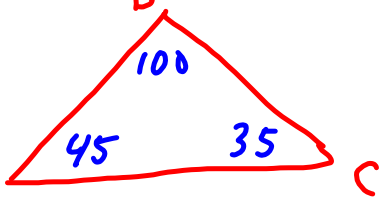
180
70
40
−
70

Isosceles Δ

#2. m ∠ABC = 100°

m ∠BCA = 35°

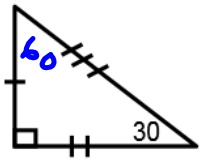
m ∠CAB = 45 °



180
100
35
−
45

Scalene Δ

#3. Find the missing angle.



90° →

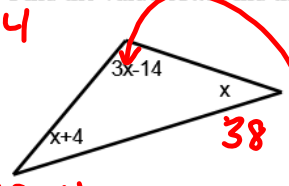
Right Δ

180
90
30
−
60

Scalene Δ

#4. Find the value of x. Find the degree measure of the angles.

3(38)-14
100



38+4
42°

$3x-14 + x + x+4 = 180$

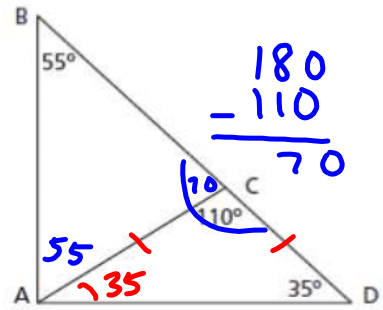
$5x-10 = 180$

+10 +10

$\frac{5x}{5} = \frac{190}{5}$

$x = 38$

#5. Fill in the missing angles in the diagram below:



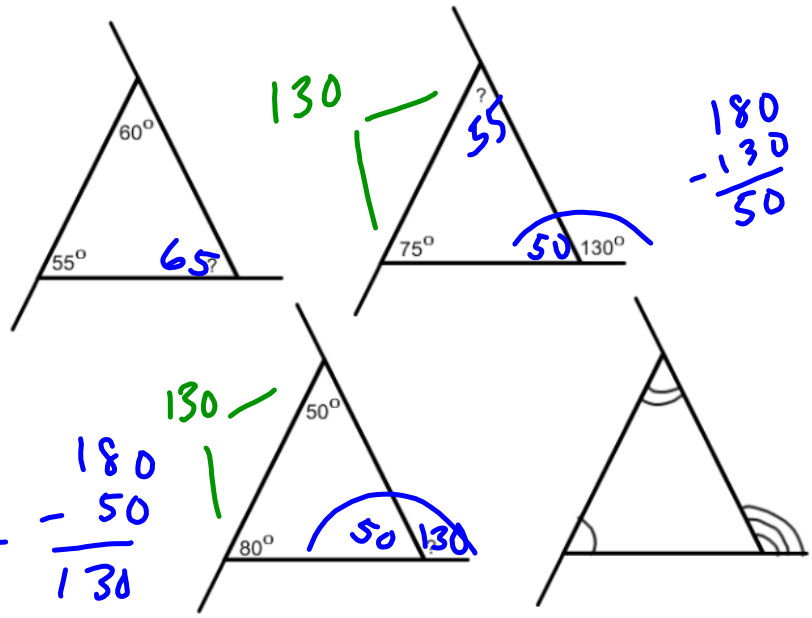
180
110
35
35

180
110
70

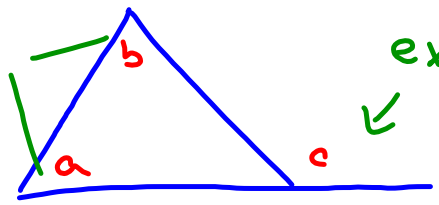
180
70
55

ΔACD is isosceles
ΔABC

#6.



What generalizations can we make about the exterior angles of a triangle?



remote interior angles

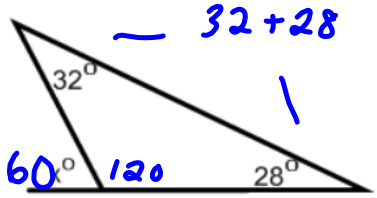
exterior angle

The 2 remote interior angles add together to give you the exterior angle.

$\angle a + \angle b = \angle c$

Try It!: Find the value of the missing angle. Show your work or explain.

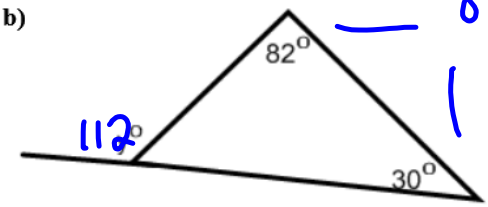
a)



32 + 28

120

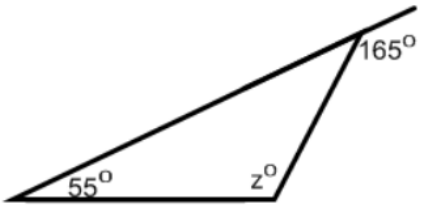
b)



82 + 30

112

c)



55 + z = 165

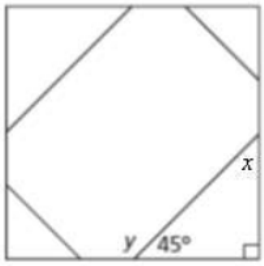
-55 -55

z = 110

Name: _____ **Class:** _____

M8-U2: HW #1 – Triangle & Angle Facts **Date:** _____

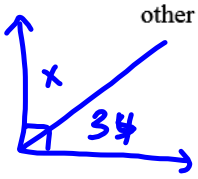
1. Luther makes a table in his shop class. A diagram of the top of the table is shown below:



What is the measure of $\angle y$ and $\angle x$? *Explain.*

90

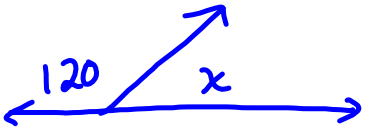
2. If two angles are complementary and one angle measures 34°, what is the measure of the other angle?



$x + 34 = 90$

180

3. If two angles are supplementary and one angle measures 120°, what is the measure of the other angle?

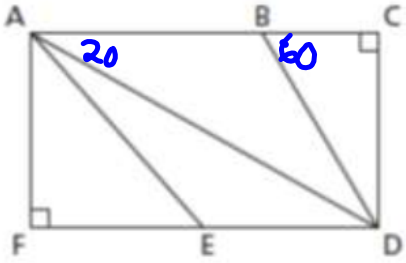


$x + 120 = 180$

4. Find the value of x in ΔABC if the $m\angle A = 94°, m\angle B = 47°$, and $m\angle C = x°$.

5. Find the value of x in ΔWYZ if the $m\angle W = 37°, m\angle Y = 68°$, and $m\angle Z = 5x°$.

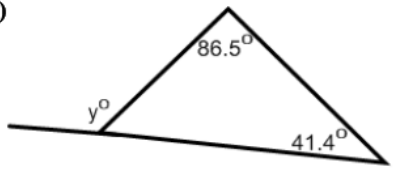
6. Given that Triangle AFE is isosceles and that $m\angle BAD = 20°$ and $m\angle CBD = 60°$.
Find the value of all of the other angles.
Explain how you arrived at the measurement for $\angle ADE$.



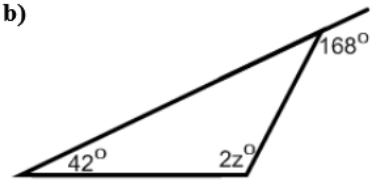
[not drawn to scale]

7. Find the value of the missing angle. Show your work or explain.

a)



b)



Spiral:

8. Simplify: $-3\frac{2}{3} \div 7\frac{3}{5} =$

9. Solve: $4c + 5 = 4c - 7$

10. Solve: $\frac{2}{3}(9b - 27) = 36$

11. The students from Mr. Jansen's class and Mrs. Schmidt's class went on a trip to a science museum. Admission was $8 per student. The total cost for all of the students' admission was $320. Mr. Jansen has 16 students in his class. How many students does Mrs. Schmidt have?