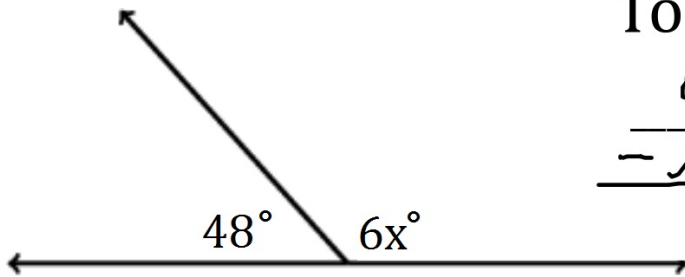Fill in the blanks. If you
need help use your notes
from Monday and yesterday

Copy and solve for *x.*
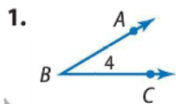
The following angle is a Supplementary *angle.*
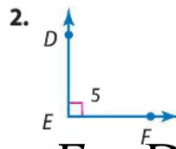*The sum of these two angles will equal* 180 *º.*

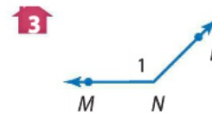48°   6x°

To solve for *x:*

$$\frac{48 + 6x = 180}{-48 \qquad\qquad -48}$$

$$6x = 132$$
$$x = 22$$

Pg. 539

1.

∠*B*, ∠ABC, ∠4,
acute angle

2.

∠*E*, ∠DEF, ∠5,
right angle

3.

∠*N*, ∠MNP, ∠1,
obtuse angle

MP Identify Structure Refer to the diagram at the right. Identify
each angle pair as *adjacent, vertical,* or *neither.* (Example 2)
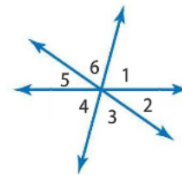
4. ∠2 and ∠5 vertical

5. ∠4 and ∠6 neither

6. ∠3 and ∠4 adjacent

7. ∠5 and ∠6 adjacent

8. ∠1 and ∠3 neither

9. ∠1 and ∠4 vertical

Agenda

Goal: To be able to apply understanding of vertical, complementary, and supplementary angles to find missing angles.
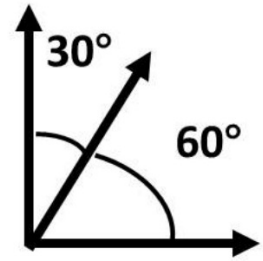

VOCAB REVIEW

<u>Vertical angles</u>

Angles that are __across from__ eachother and have the __same__ measure.
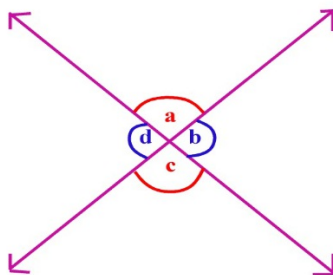
VOCAB REVIEW

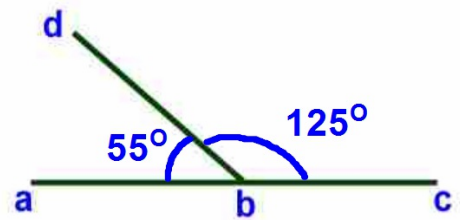**Complementary angles**
TWO angles whose sum is __90__ °.
C is for 'corner'.

30°
60°

Supplementary angles
TWO angles whose sum is __180__ °. S is for 'straight'.

d
55° 125°
a   b   c

Lesson 1 and Lesson 2 Worksheet
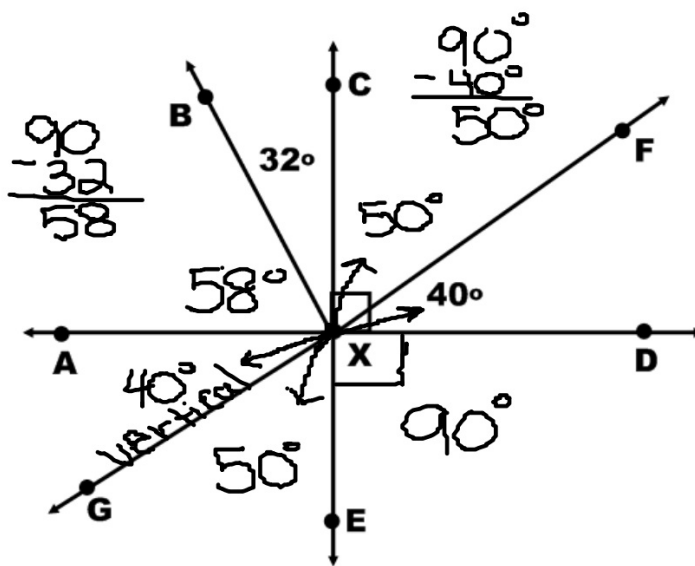On Lesson 1: CLASSIFY and name the angle 3 ways for #1-6

Vocab Flash Cards

On the WHITE SIDE (without lines) write one of the 11 vocabulary words from your vocab sheet. On the LINED SIDE, write the definition. Create 1 index card for each word.
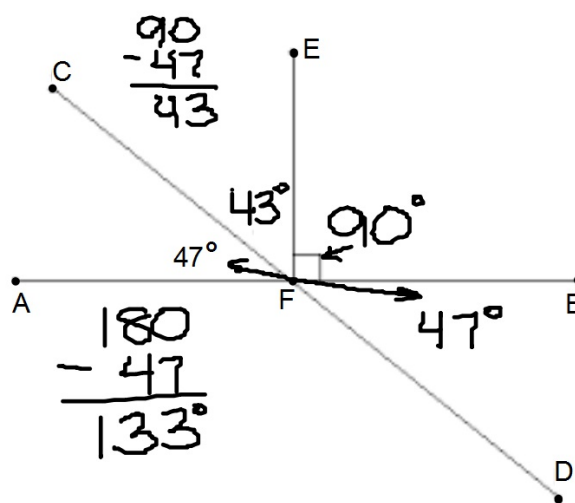
Find the measure of all missing angles.

$m \angle CXB = 32°$

$m \angle BXA = 58°$

$m \angle AXG = 40°$

$m \angle GXE = 50°$

$m \angle EXD = 90°$

$m \angle DXF = 40°$

$m \angle FXC = 50°$

Find the measure of all missing angles.

$m \angle CFA = 47°$
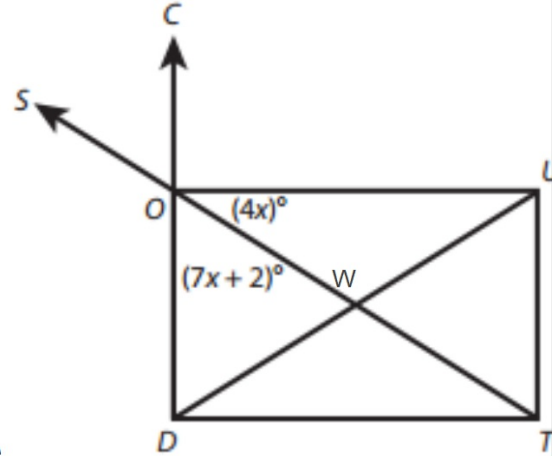
$m \angle AFD = 133°$

$m \angle DFB = 47°$

$m \angle BFE = 90°$

$m \angle EFC = 43°$

Draw the figure. Copy the statements.

In the diagram, $\overline{DO}$ and $\overline{TO}$ are extended as shown.
Determine if the statements are true or false.

A. $\angle SOC$ and $\angle DOU$ are complementary

B. $x=8$

C. $\angle OWU$ and $\angle DWT$ are vertical angles

D. $\angle SOC$ and $\angle DOS$ are supplementary

E. $m\angle TOU = 40°$

F. $\angle COS$ and $\angle TOD$ are equal in measure

C

S

O (4x)°

(7x + 2)°   W

D   T

Warm Up   LEVEL 0   10/24/16

1. Two angles are vertical angles. One angle is labeled 20°. The other angle is labeled $(2x+10)°$. Find the value of x.

2. From the following angle measures, choose a pair that is complementary and a pair that is supplementary. *Numbers can be reused
    26°   92°   102°   78°   22°   85°   12°
    Complementary: _____ and _____
    Supplementary: _____ and _____

Agenda

- Triangles introduction

Goal:

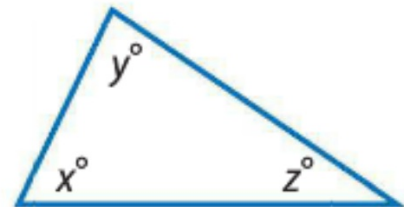To be able to classify and construct triangles.
To be able to find the missing angle measure in a triangle.

What we already know about triangles

What we have to remember...

The measure of the interior angles of a triangle is equal to 180°.

$$x° + y° + z° = 180°$$

Ramps Julia practices jumping on a ski ramp. The front of the ramp is a triangle like the one shown below.

1. Draw an X through the type of angle that is not shown in the triangle.

   right   acute   obtuse

2. Measure the unknown angle. Describe the relationship between the 80° angle and the unknown angle. _____

3. Draw a triangle with one obtuse angle.

4. Is it possible to draw a triangle with two obtuse angles? Explain.
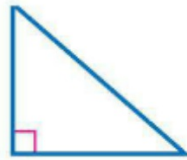
Page 555 #1-4

How to Classify Triangles

First, by using the angles...

all acute angles

acute triangle

1 right angle

right triangle

1 obtuse angle

obtuse triangle

How to Classify Triangles

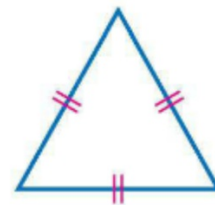Then, by using the sides...

no congruent sides

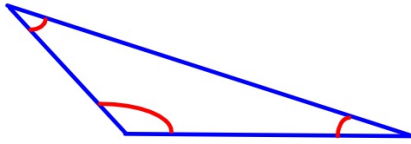**scalene triangle**

at least 2 congruent sides

isosceles triangle

3 congruent sides

equilateral triangle

** Congruent means equal
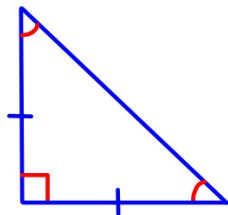
Classifying trianges

Look at the angles.
[ ] all acute angles
[ ] one right angle
[ ] one obtuse angle

Look at the sides.
[ ] no congruent sides
[ ] two congruent sides
[ ] three congruent sides

This triangle is...

Classifying trianges

Look at the angles.
[ ] all acute angles
[ ] one right angle
[ ] one obtuse angle

Look at the sides.
[ ] no congruent sides
[ ] two congruent sides
[ ] three congruent sides

This triangle is...

Constructing trianges

A triangle with a right angle
and two congruent sides.

Draw the angle.

Draw the sides.

Classify the triangle:

Find the measure of the missing angle
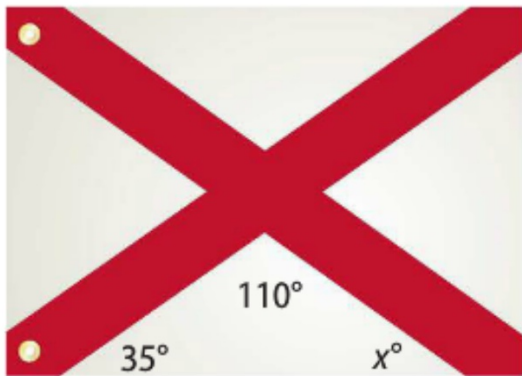
Find the measure of ∠Z

Y

119°   43°

Z   X
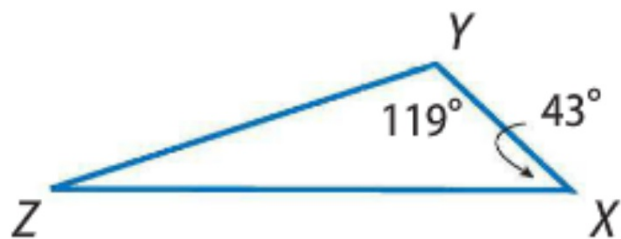
Find the measure of the missing angle

In $\triangle ABC$, if m∠A = 25° and m∠B = 108°, what is m∠C?

Find the measure of the missing angle

The Alabama state flag is shown. What is the missing measure in the triangle?

110°

35°

$x°$

Classwork/Homework

Page 558 #1-4 and Rate Yourself
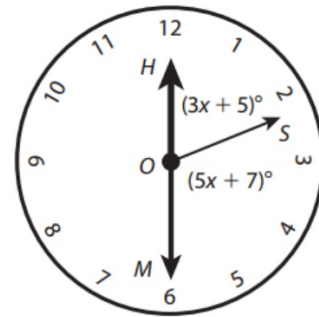Page 559 #1-8

Warm Up   LEVEL 0   10/25/16
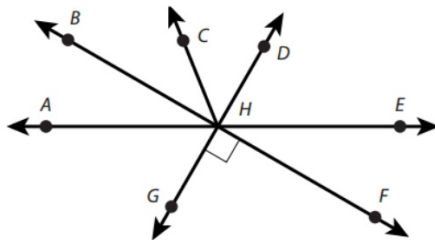
Complete Page 560 #10

The hour and minute hands on the clock shown form a straight line. The location of the second hand on the clock is also shown on the diagram. Find the measures, in degrees, of angle *HOS* and angle *MOS*.

Show your work.

Angles Review

1 In the figure, $\overleftrightarrow{AE}$, $\overleftrightarrow{BF}$, $\overleftrightarrow{DG}$, and $\overrightarrow{HC}$ intersect at point *H*, and $\angle FHG$ is a right angle.

Choose *True* or *False* for each statement.

a. $\angle AHB$ and $\angle AHG$ are vertical angles. ☐ True ☐ False

b. $\angle EHF$ and $\angle DHE$ are adjacent angles. ☐ True ☐ False

c. The measure of $\angle FHG$ is equal to the measure of $\angle DHF$. ☐ True ☐ False

d. The sum of the measures of $\angle BHC$ and $\angle CHD$ is equal to the measure of $\angle FHG$. ☐ True ☐ False

Complete page 561 #15-26