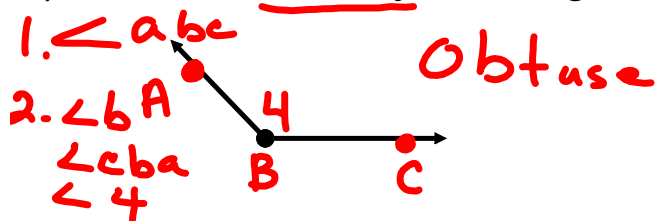


You need out your warm up, agenda, & HW

Homework: Comp/Supp Angles Practice

Opening:

1) ~~Name~~ & Classify the Angle:



2) Solve for x:

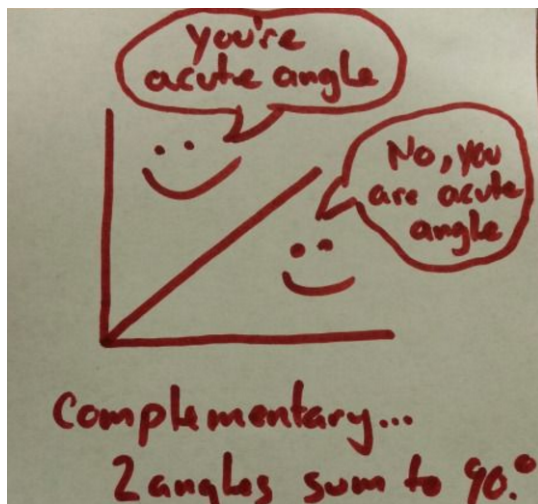
$$4x + 12 = 48$$

$$\begin{array}{r} \downarrow -12 \quad -12 \\ \hline 4x = 36 \\ \hline \downarrow 4 \quad 4 \\ x = 9 \end{array}$$

3) Solve for x:  $3x + 2 + 1x = 18$

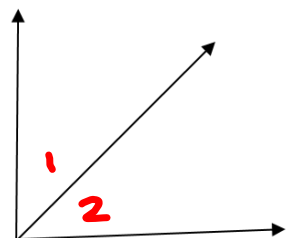
$$\begin{array}{r} -2 \quad -2 \\ \hline 3x + 1x = 16 \\ \hline \downarrow 4 \quad 4 \\ 4x = 16 \\ \hline \downarrow 4 \quad 4 \\ x = 4 \end{array}$$

## Complementary- Think Complements!

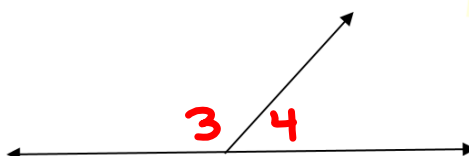


# Supplementary Angles- STRAIGHT LINE

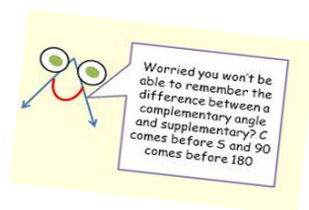
Supplementary, Complementary Angles, & Adjacent Angles- Notes



Complementary Angles- Two angles whose measures have a sum of  $90^\circ$



Supplementary Angles- Two angles whose measures have a sum of  $180^\circ$



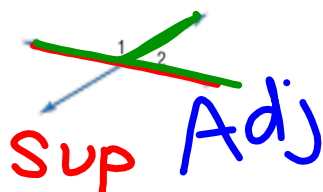
Adjacent Angles- Two angles who share a common side & vertex. (Next to each other)

Practice!

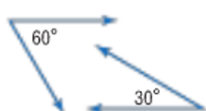
-Determine if the following angles are *complementary*, ~~complementary~~, or *neither*

**SUPP**

1.



2.



comp  
 $60 + 30 = 90$

3.

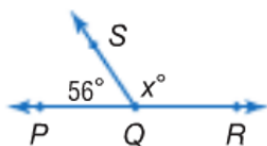


Comp.  
 $75 + 15 = 90$

You can use angle relationships to find the missing angle measures:

1. Determine the angle relationship.
2. Find the missing angle measures by setting up an equation.

EX:



-What is the angle relationship? **Supplementary**

- Set up an equation to find the missing angle measure:

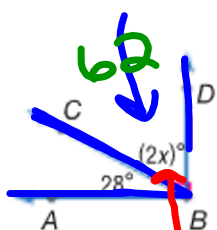
$$56 + x = 180$$

$$-56 \quad -56$$

$$x = 124^\circ$$

2

2.



-What is the angle relationship? Comp.  
 -Set up an equation to find the missing angle measure:

$$\begin{array}{r}
 2x + 28 = 90 \\
 - 28 \quad - 28 \\
 \hline
 2x = 62 \\
 \frac{2x}{2} = \frac{62}{2}
 \end{array}$$

2.31  
 $62$

$x = 31$

3.



-What is the angle relationship? Supp.

- Set up an equation to find the missing angle measure:

$$3x + 123 = 180$$

$$\begin{array}{r} -123 \\ \hline 3x = 57 \end{array}$$

3 · 19  
57

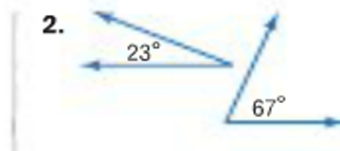
$$\begin{array}{r} 3x = 57 \\ \hline 3 \quad \quad 3 \\ \hline x = 19 \end{array}$$

x = 19

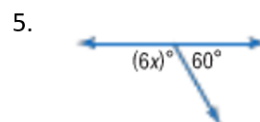
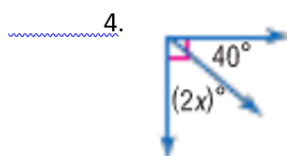


Supplementary & Complementary Angles- Practice!

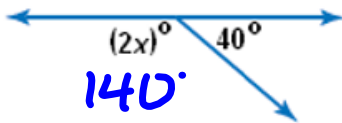
-Determine if the following angle measures are *complementary*, *supplementary*, or *neither*



-Find the missing angle measurements:

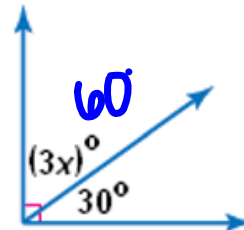


3.



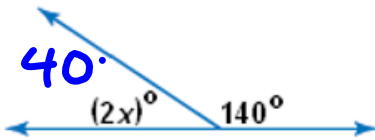
$$\begin{array}{r}
 2x + 40 = 180 \\
 -40 \quad -40 \\
 \hline
 2x = 140
 \end{array}$$

4.



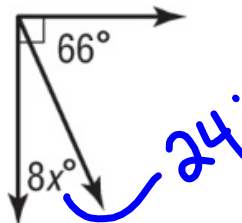
$$\begin{array}{r}
 3x + 30 = 90 \\
 -30 \quad -30 \\
 \hline
 3x = 60
 \end{array}$$

5.



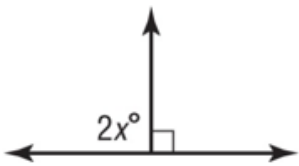
$$\begin{array}{r}
 2x + 140 = 180 \\
 -140 \quad -140 \\
 \hline
 2x = 40
 \end{array}$$

6.



$$\begin{array}{r}
 8x + 66 = 90 \\
 -66 \quad -66 \\
 \hline
 8x = 24
 \end{array}$$

7.



Sit silently for the news