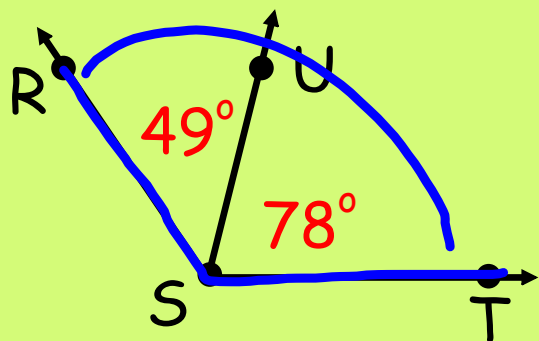
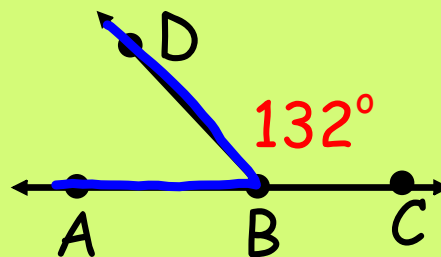


9/9/19 - Warm Up Problem

Find the measure of each angle listed.

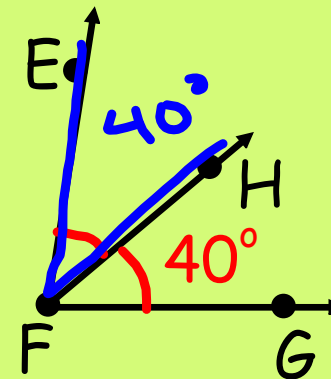


$$m\angle RST = 127^\circ$$



$$m\angle ABD = 48^\circ$$

$$\begin{array}{r} 180 \\ - 132 \\ \hline 48 \end{array}$$



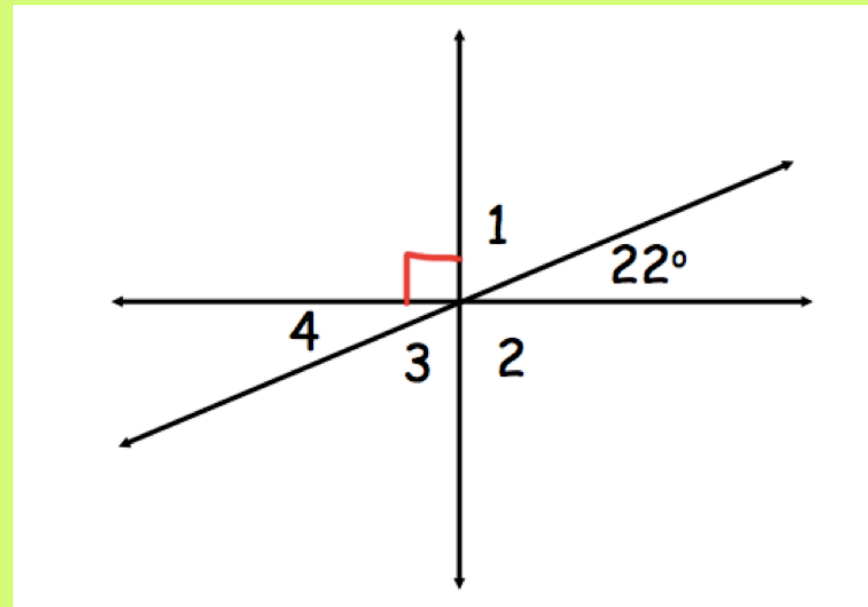
$$m\angle EFH = 40^\circ$$

Concept 3 - Angle Pairs

Goals: Identify and use special pairs of angles

When lines intersect, several angles are formed. The measures of these angles have special relationships.

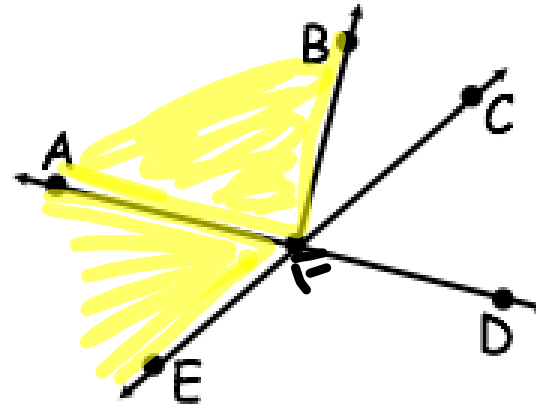
- Certain pairs of angles have special names and special relationships



ADJACENT ANGLES

Examples:

$\angle AFB$ and
 $\angle AFE$



Characteristics:

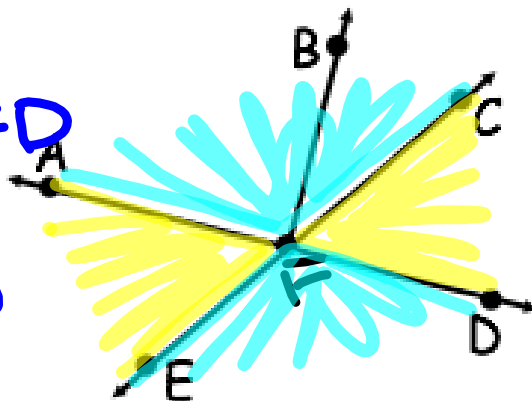
- share a vertex and one side
- have no common interior points
(don't overlap)

VERTICAL ANGLES

Examples:

$\angle AFE$ and $\angle CFD$

$\angle AFC$ and $\angle EFD$



Characteristics:

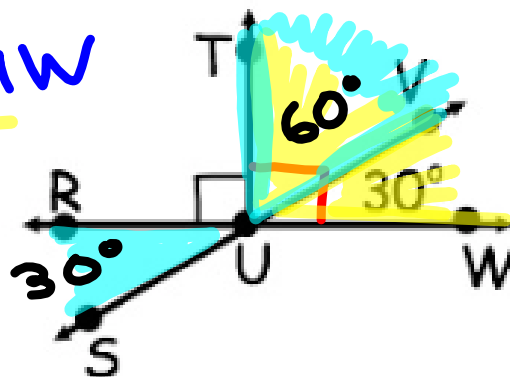
- opposite from each other
- formed by 2 intersecting lines
- always congruent

COMPLEMENTARY ANGLES

Examples:

$\angle TUV$ and $\angle VUW$

$\angle TUV$ and $\angle RUS$



Characteristics:

- measures add to 90°
- can be adjacent or nonadjacent
- each angle is called the "complement" of the other

SUPPLEMENTARY ANGLES

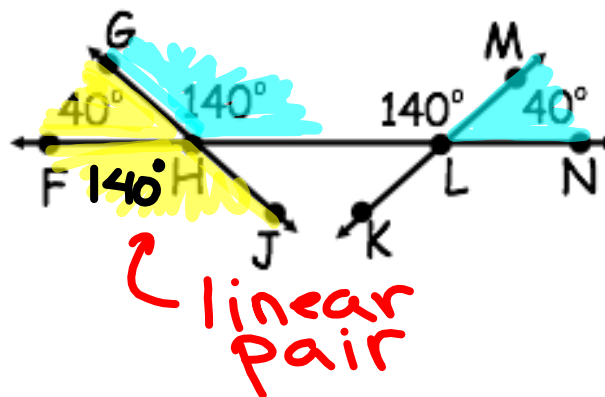
Examples:

$\angle FHG$ and
 $\angle FHJ$

$\angle GHL$ and
 $\angle MLN$

Characteristics:

- measures add to 180°
- can be adjacent or nonadjacent
- each angle is called the "supplement" of the other



Linear Pair:

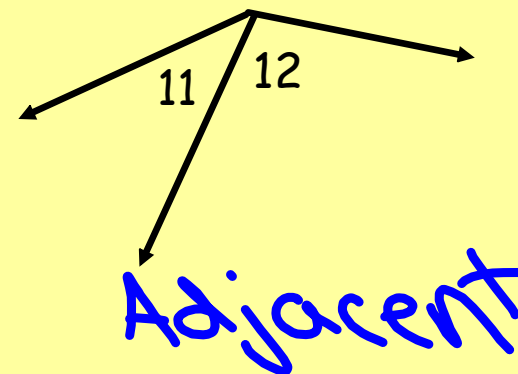
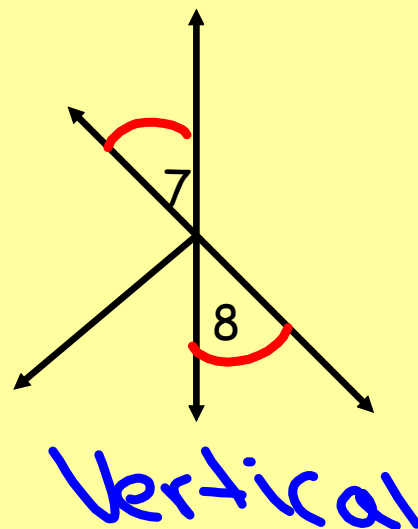
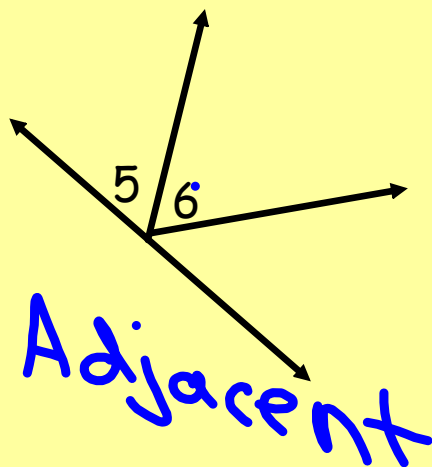
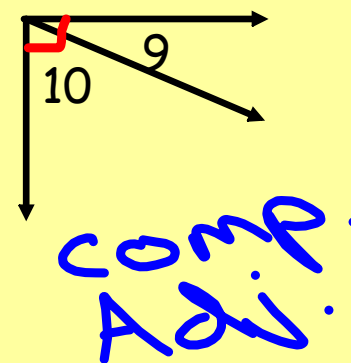
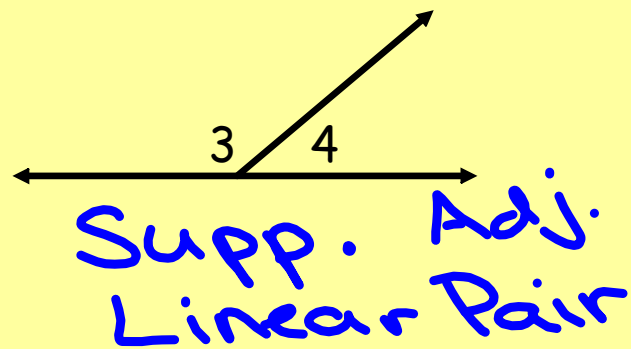
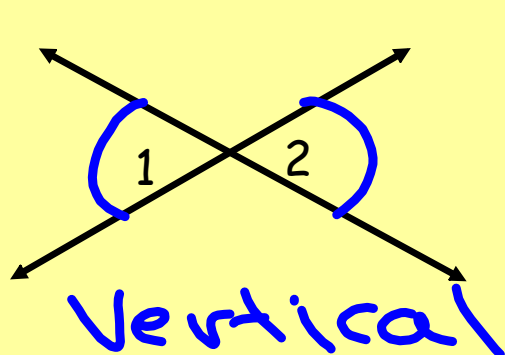


Postulate 1-9: Linear Pair Postulate

If two angles form a linear pair, then they are supplementary

Identify each special pair of angles.

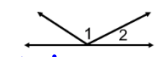
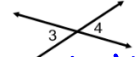

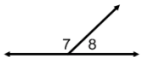


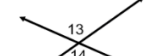
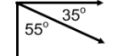

Adjacent, Vertical, Supplementary, or Complementary



Assignment:
Concept 3 Worksheet
(front)
 - due by Friday 9/13

IDENTIFYING ANGLE PAIRS

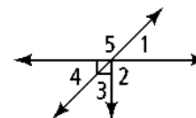
Identify each pair of angles as adjacent, vertical, complementary, supplementary, or a linear pair.

1.  Adjacent	2.  Vertical	3. 
4. 	5. 	6. 
7. 	8. 	9. 

Use the diagram at the right. Is each statement true? Explain how you can tell.

10. $\angle 2$ and $\angle 5$ are adjacent angles.

No. Not next to each other



11. $\angle 4$ and $\angle 1$ are vertical angles.

12. $\angle 1$ and $\angle 2$ are complementary angles.

13. $\angle 4$ and $\angle 5$ are a linear pair.

Name an angle described by the following.

14. Complementary to $\angle BOC$

15. Supplementary to $\angle DOB$

16. Adjacent and supplementary to $\angle DOE$

17. Vertical to $\angle DOB$

