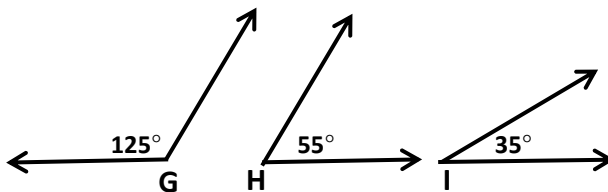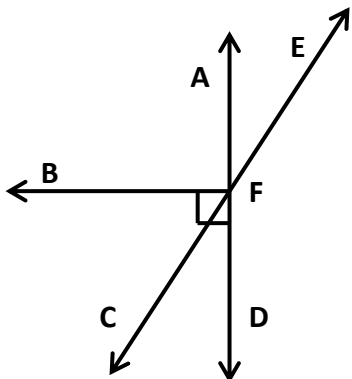## Vocabulary

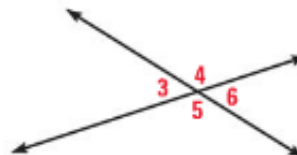**For each term state the definition, sketch a diagram, and provide examples from the following diagrams.**

Definition	Diagram	Example
Complementary angles		
Supplementary angles		
Adjacent angles		
Linear pair		
Vertical angles		

Using Angle Pairs

Example1 : If m∠4 = 168°, find m∠3 , m∠5 , and m∠6.
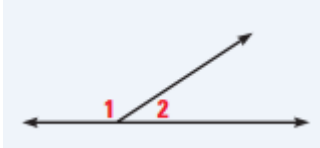
Example 2 : ∠A and ∠B are complementary. Find m∠A and m∠B.

m∠A = $(11x + 24)°$

m∠B = $(x + 18)°$
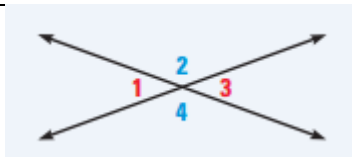
Example 3 : Find m∠DEG and m∠GEF.
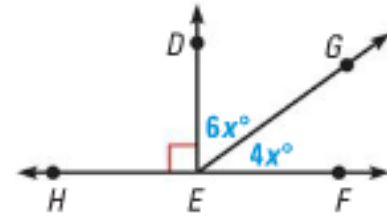
Linear Pair Postulate (LPP)	
If two angles form a linear pair, then they are supplementary.	$m\angle 1 + m\angle 2 = 180°$

Example 4: Solve for x in the diagram then find $m\angle PSQ$.
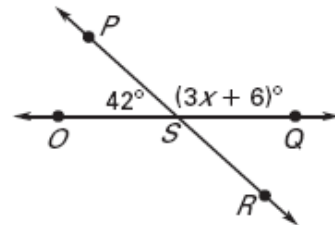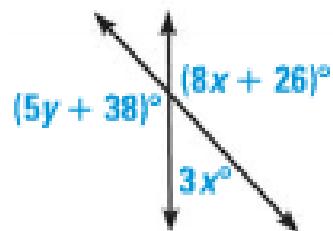

Vertical Angles Theorem (VAT)	
Vertical angles are congruent.	$\angle 1 \cong \angle 3$ and $\angle 2 \cong \angle 4$

Example 5: Find the value of y and the measure of each angle in the diagram below.
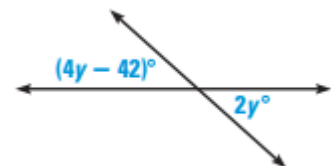
Example 6 : Find the values of x and y.

$(5y + 38)^\circ$ $(8x + 26)^\circ$

$3x^\circ$

Example 7 : Find the measure of each angle in the diagram.

$2(5x - 5)^\circ$

$(5y + 5)^\circ$ $(7y - 9)^\circ$

$(6x + 50)^\circ$