

1.6: Angle Pair Relationships

Objective: Identify vertical angles and linear pairs, identify complementary and supplementary angles

Warm up: Have students draw an x , have them measure all the angles. What do you notice? Vertical angles are congruent
Adjacent angles are supplementary

Vocab

Vertical Angles - the sides of angles form two pairs of opposite rays.
Vertical angles are congruent



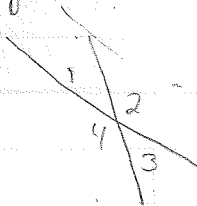
Linear Pair - two adjacent angles whose non-common sides are opposite rays.
Two adjacent angles that form a straight line



Complementary Angles - angles when added equals 90°

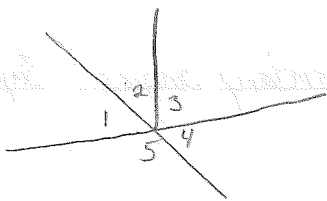
Supplementary Angles - angles when added equals 180°

Identifying Vertical Angles and Linear Pairs



Name the vertical angles: 1, 3 / 2, 4

Name the linear pairs: 1, 4 / 1, 2 / 2, 3 / 3, 4

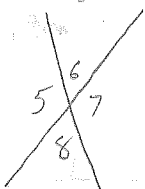


Name the vertical angles: 1, 4

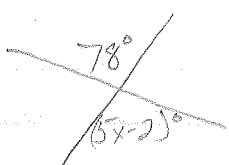
Name the linear pairs: 1, 5 / 5, 4



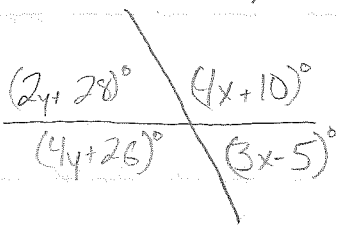
Finding the measure of vertical angles and linear pairs



$m\angle 5 = 130^\circ$, find the measure of all the other angles



find the value of x



Finding the measure of complementary and supplementary angles

$\angle A$ is a complement of $\angle C$. $m\angle A = 47^\circ$, what is the $m\angle C$?

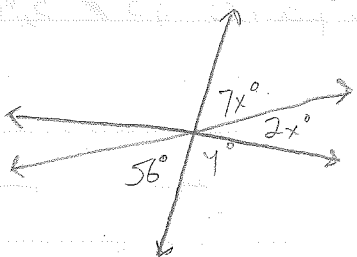
$\angle P$ is a supplement of $\angle R$. $m\angle R = 36^\circ$, what is the $m\angle P$?

$\angle A$ and $\angle B$ are complementary. $m\angle A = 5x + 8$
 $m\angle B = x + 4$ } find the value of x and the measurement of the angles

$\angle C$ and $\angle D$ are supplementary. $m\angle C = 3x^\circ$
 $m\angle D = x + 8$

Closure:

What are vertical angles? What are complementary angles? Supplementary?



HW 1.6 B