Angle Pair Relationships
(part 2)

title

8. 13

$x+11 + x-15 = 180$

$2x-4 = 180$

$2x = 184$

$x = 92$

$m\angle G = 92+11 = 103°$

$m\angle H = 92-15 = 77°$

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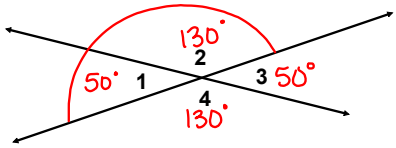
Draw this pretty big on your paper.



Measure all 4 angles. Write 2 statements about what you notice. Adjacent $\angle$s = 180°

Angles across from each other are =

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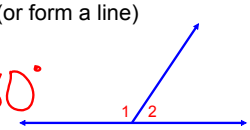
Linear pair—two adjacent angles whose noncommon sides are opposite rays (or form a line)

$m\angle 1 + m\angle 2 = 180°$



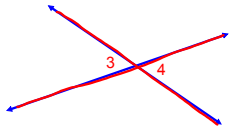
Linear Pair Postulate

Two angles that form a linear pair are supplementary.

linear pair

Vertical angles—the angles opposite each other when two lines intersect

$m\angle 3 = m\angle 4$

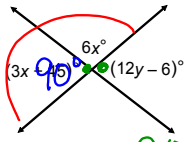


Vertical Angles Theorem

Vertical angles are congruent.

vertical angles

Find the values of *x* and *y*.



$3x+45+6x=180$

$9x+45=180$

$9x=135$

$x=15$

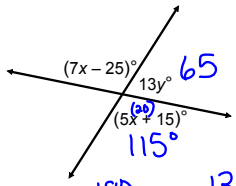
$12y-6=90$

$12y=96$

$y=8$

examples

Find the values of *x* and *y*.



$7x-25=5x+15$

$2x-25=15$

$2x=40$

$x=20$

$180-115=65$

$13y=65$

$y=5$

examples

Conclusion

1. **What is a linear pair?**
   2 adjacent ∠s that form a straight line
2. **What are vertical angles?**
   Angles that are opposite when 2 lines intersect
3. **Give some ideas on how to solve the last problems we did.**
   2 of same variables to set up equation.

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Assignment

Angle Relationships Wkst #2

Sep 9-9:01 AM