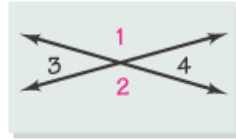


Objectives: You will learn how to identify special pairs of angles and identify perpendicular lines.

Vertical Angles: Two angles that are formed by the intersection of two lines.



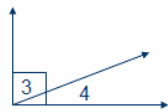
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Vertical Angles Theorem: all vertical angles are congruent



Apr 18-7:48 AM

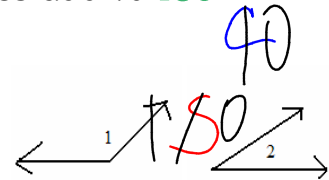
Complementary Angles: two angles whose measures add to 90°



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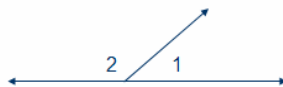
Supplementary Angles: two angles whose measures add to 180°

C 90
S 180



Apr 18-7:52 AM

Linear Pair: two angles that are adjacent (right next to each other) whose angles add to 180°



Apr 18-7:54 AM

Example #1:

1. If an angle measures 78° , what is its complement?

$$90 - 78 = 12$$

2. If an angle measures 78° , what is its supplement?

$$180 - 78 = 102$$

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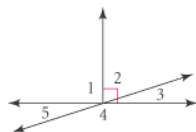
(1.6) Describing Pairs of Angles 7.notebook

October 04, 2018

Example #2:

1. Name all of the pairs of vertical angles

$\angle 5 \text{ and } \angle 3$



2. Name all of the pairs of supplementary angles

$\angle 4 \text{ and } \angle 3$
 $\angle 4 \text{ and } \angle 5$

3. Name all of the pairs of complementary angles

$\angle 2 \text{ and } \angle 3$

4. Name a linear pair.

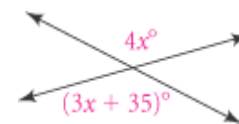
$\angle 3 \text{ and } \angle 4$
 $\angle 4 \text{ and } \angle 5$

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Example #3:

Using the diagram, find x.

$4x = 3x + 35$
 $x = 35$

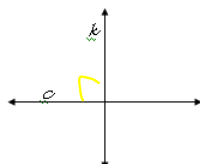


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Perpendicular Lines: Two lines that intersect at 90° .

→ Symbol:

→ How to mark lines perpendicular:



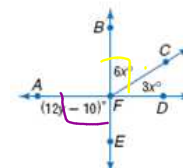
Oct 1-5:42 PM

Example #4:

Find x and y so that \overline{BE} and \overline{AD} are perpendicular.

$6x + 3x = 90$
 $9x = 90$
 $x = 10$

$12y - 10 = 90$
 $12y = 100$
 $y = 8.3$



Oct 1-5:45 PM

Example #5:

An angle measures 20 more than its supplement.

Find the angle and its supplement.

$x + x + 20 = 180$

$2x + 20 = 180$

$2x = 160$
 $x = 80$



Sep 30-11:19 AM

Oct 4-1:04 PM