

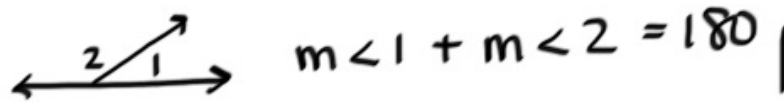
Math 2

- Study Vocab

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## Linear Pair Postulate



if two angles are a linear pair, then the sum of the two angles is  $180^\circ$ .

## Vertical Angles theorem



Vertical Angles have equal measure.

$$m\angle 1 = m\angle 3 \quad m\angle 2 = m\angle 4$$

Lines and Angles

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Postulate: Statement of basic facts that are accepted as true  
 (post.) Without proof

Theorem: Statements that have been proven using deductive  
 (Thm) reasoning from definitions, facts & relationships.

\*Transitive property: if two things are equal to the same thing, then they are equal to each other.

ex)  $\angle A = \angle C, \angle B = \angle C$  then  $\angle A = \angle B$

Other useable properties:

Addition Property  
 Subtraction Property


Multiplication Property  
 Division Property

Proofs

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Parallel lines - Lines in a plane that do not intersect

Transversal - line that intersects two lines 

Supplementary - pair of angles that sum to  $180^\circ$

Complementary - pair of angles that sum to  $90^\circ$

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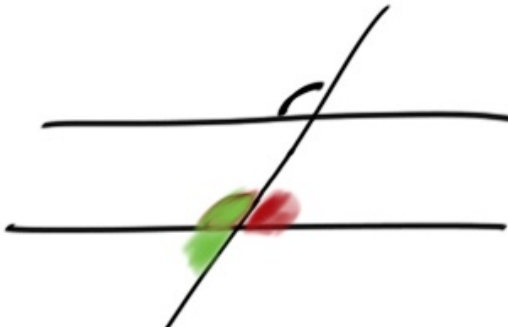
Vocabulary


Vocabulary

- Supplementary
- Complementary
- Acute  $\angle$
- Right  $\angle$
- obtuse  $\angle$
- transversal
- linear pair
- Same-side exterior
- Same-side interior
- Alternate exterior
- Alternate interior
- vertical  $\angle$ s
- Corresponding  $\angle$ s

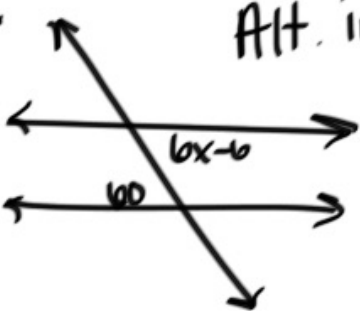
definitions

Diagram



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31. Alt. interior  $\cong$




$$6x - 6 = 60$$

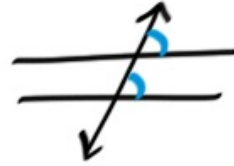
$$\frac{6x - 6}{+6} = \frac{60}{+6}$$

$$\cancel{6}x = \frac{60}{6}$$

$$\boxed{x = 11}$$

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\* Corresponding Angles Assumption: if two parallel lines are cut by a transversal, then the corresponding angles have equal measure.



Parallel Lines Postulate: In a plane, two lines cut by a transversal are parallel if & only if corresponding angles have equal measure.

More Proofs

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