

# THURSDAY, SEPTEMBER 6, 2012

## TISK Problems

- 1) Factor completely:  $6x^2 + 11x - 35$
  - 2) Draw  $\overleftrightarrow{AB}$  and  $\overleftrightarrow{CD}$  that intersect at point  $E$ .
  - 3) Name two opposite rays in problem #2.
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There will be 2 Mental Math questions today.

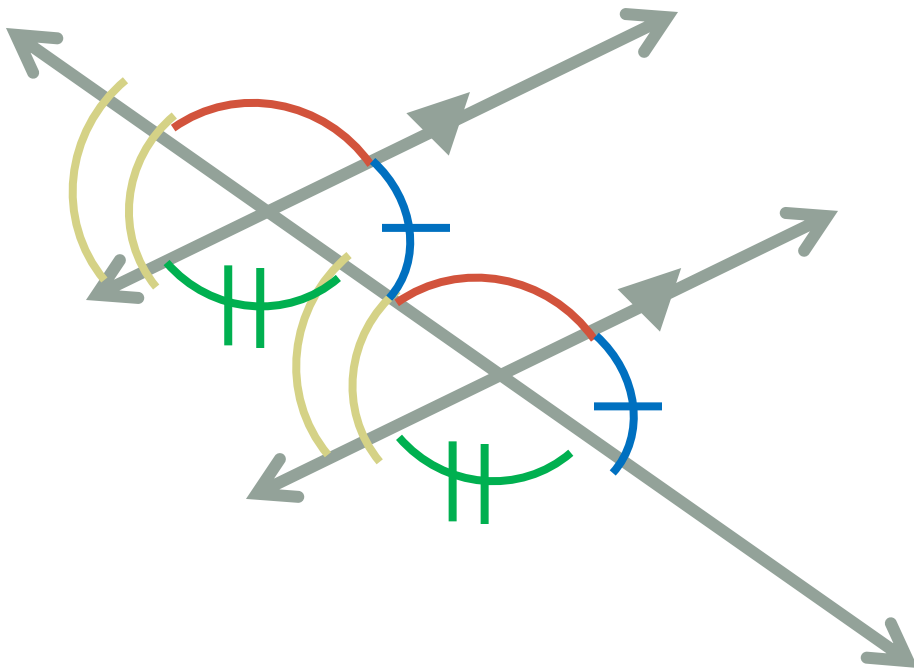
Homework: p. 135 #17-31 mentally;  
38-40 & 44 in writing

# Homework Check

- p. 128 #16-33 mentally; 34-43 writing

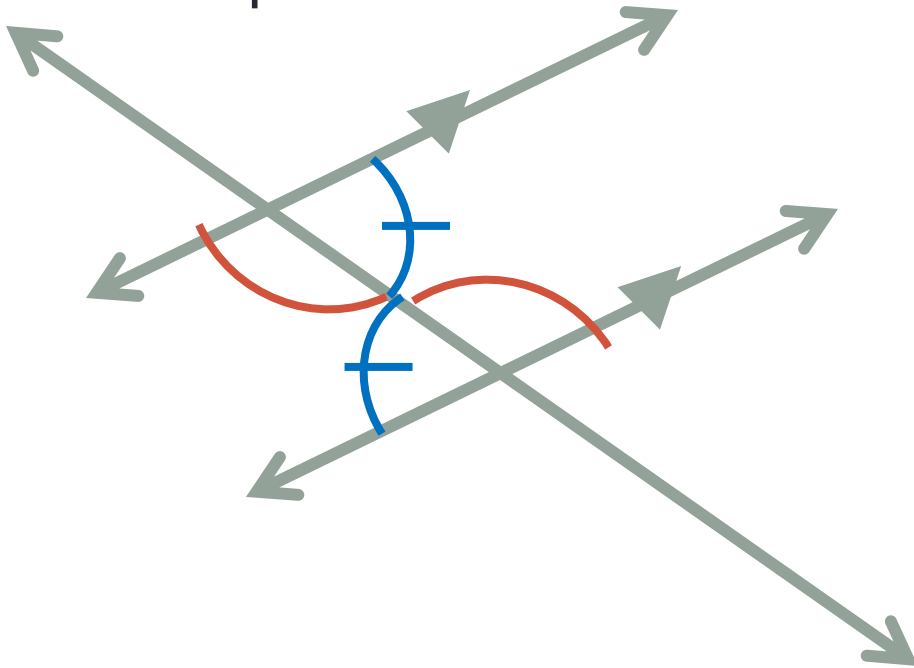
## §3.2 Angles and Parallel Lines

- Corresponding Angles Postulate
  - If two parallel lines are cut by a transversal, then corresponding angles are congruent.



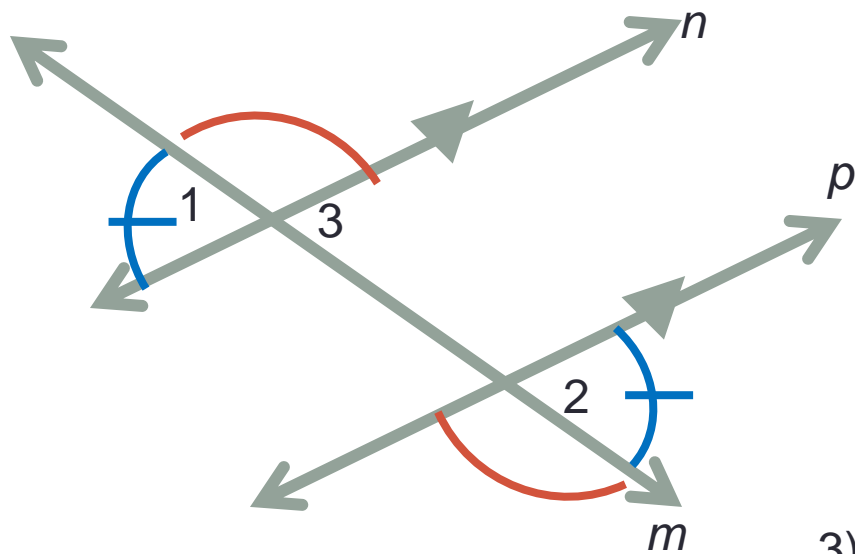
# Alternate Interior Angles Theorem (AIA Theorem)

- If two parallel lines are cut by a transversal, then alternate interior angles are congruent.
- You will prove this for homework!



# Alternate Exterior Angles Theorem (AEA Theorem)

- If two parallel lines are cut by a transversal, then alternate exterior angles are congruent.



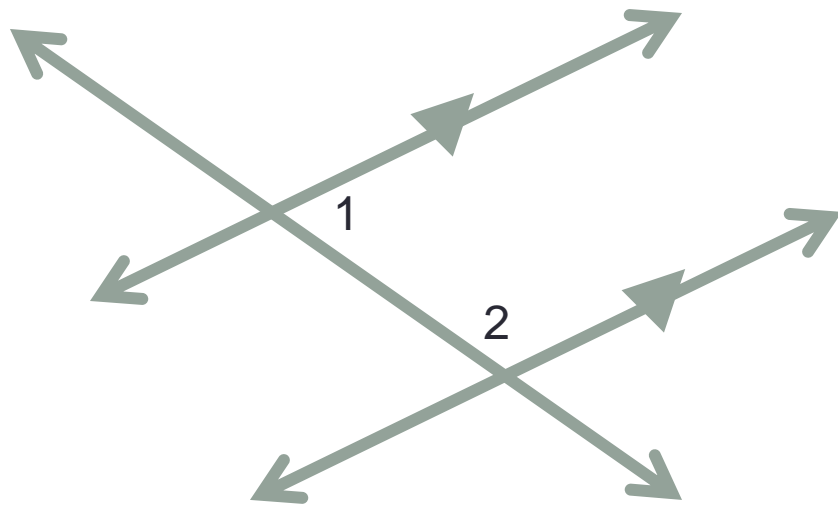
Given:  $n \parallel p$

Prove:  $\angle 1 \cong \angle 2$

Statements	Reasons
1) $n \parallel p$	1) given
2) $\angle 2 \cong \angle 3$	2) If 2 $\parallel$ lines are cut by a transversal $\Rightarrow$ Corresponding $\angle$ s are $\cong$
3) $\angle 1$ & $\angle 3$ are vertical $\angle$ s	3) Assumed
4) $\angle 1 \cong \angle 3$	4) If 2 $\angle$ s are vertical angles $\Rightarrow$ they're $\cong$
5) $\angle 1 \cong \angle 2$	4) If $\angle A \cong \angle B$ & $\angle B \cong \angle C \Rightarrow \angle A \cong \angle C$

# Consecutive Interior Angles Theorem (CIA Theorem)

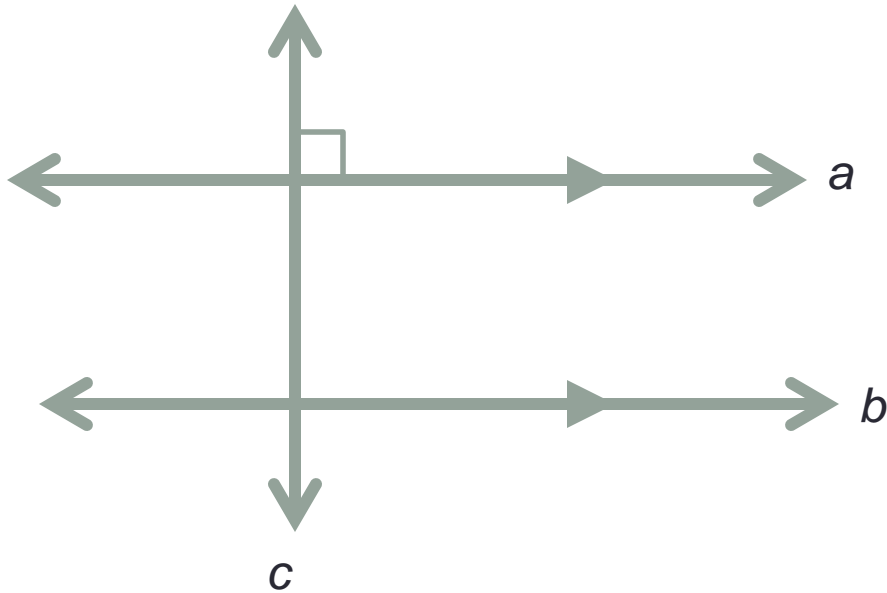
- If two parallel lines are cut by a transversal, then consecutive interior angles are supplementary.



$$m\angle 1 + m\angle 2 = 180^\circ$$

# Perpendicular Transversal Theorem ( $\perp$ Transversal Theorem)

- If two parallel lines are cut by a transversal and the transversal is perpendicular to one of the lines, then it is perpendicular to the other line as well.



$$c \perp b$$

# Homework

- p. 135 #17-31 mentally; 38-40 & 44 in writing