Agenda:
1. section 2-1 (part 3)
2. retest policy

Housekeeping:
1. SHOW WORK on all problems
   (for assignments, quizzes & tests)
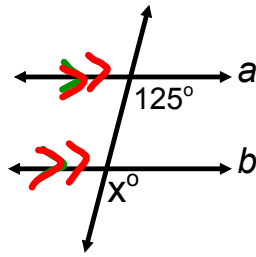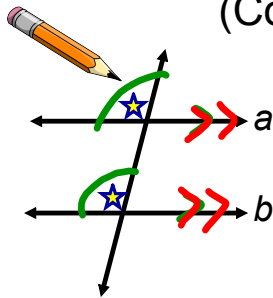2. retest deadline: 10-6 (next Friday)
3. no food please

Assignment due tomorrow:
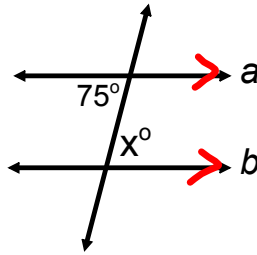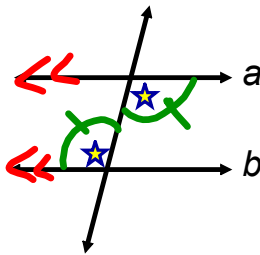> Pearson 2-1 "MathXL" (online)

Today you will need:
> a calculator
> pencil

Topic 2-1 Parallel Lines and Angle Pairs

If $a \parallel b$, then Corresponding Angles (CA) are **congruent**
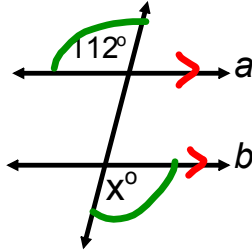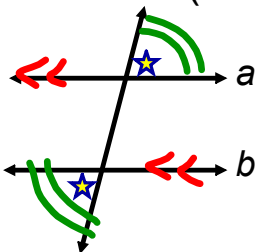(Corresponding Angles Postulate)

$x = 125$

If $a \parallel b$, then Alternate Interior Angles (AIA) are **congruent**
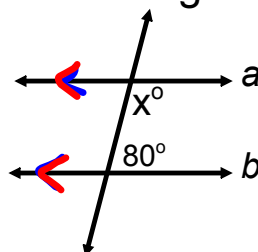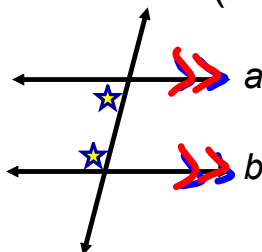(Alternate Interior Angles Theorem)

$x = 75$

If $a \parallel b$, then Alternate Exterior Angles (AEA) are **congruent**
(Alternate Exterior Angles Theorem)

$=$

$x = 112$

If $a \parallel b$, then Same Side Interior Angles (SSIA) are **Supplementary**
(Same Side Angles Theorem)

add to $180°$

$x + 80 = 180$
$ -80 -80$

$$x = 100$$

Get your "Student Companion" book

Turn to pg. 38 top right

Review of pairs of angles

Answer questions #1-4

1. **? ESSENTIAL QUESTION** What angle relationships are created when parallel lines are intersected by a transversal?

AIA are _____   Corresponding

AEA _____   ∠ _____

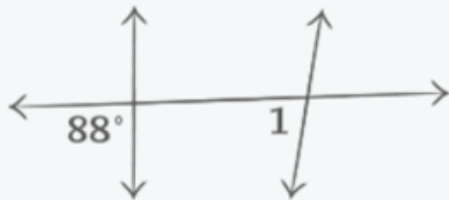SSIA _____

2. **Vocabulary** When a transversal intersects two parallel lines, which angle pairs are congruent?

3. Error Analysis What error did Leah make?

pg. 38

88°   1

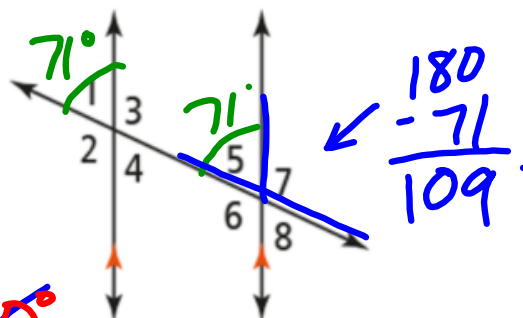$m\angle 1 = 88°$ by Corresponding
Angles Theorem   ✗

It does not say
that the lines are parallel.... so
$m\angle 1 \neq 88°$

(Corr. ∠ Postulate)
−corresponding ∠s ≅

Same side int. ∠s − supp.
(SSIA Theorem)

Use the diagram for Exercises 5–8.

Classify each pair of angles.
Compare angle measures,
and give the postulate or
theorem that justifies it.

71°

180
−71
109

5. ∠2 and ∠6

6. ∠3 and ∠5   180°

If $m\angle 1 = 71°$**, find the measure of each angle.**

⑦ ∠5 = 71° (corresp. ∠ ≅)

8. ∠7 = 109° (linear pair)

9. Elm St. and Spruce St.
are parallel.   corresp.
What is $m\angle 1$?   ∠ ≅

180
−112
? = 1
linear
pair   68°

71°   3
2   4
71°   5   7
6   8

4th Ave.
112°
112°
Spruce St.
Elm St.

Pairs of Angles Review

a) Name each angle pair.   **b) Find the measure of each angle indicated.**

1)

parallel lines

?

106°
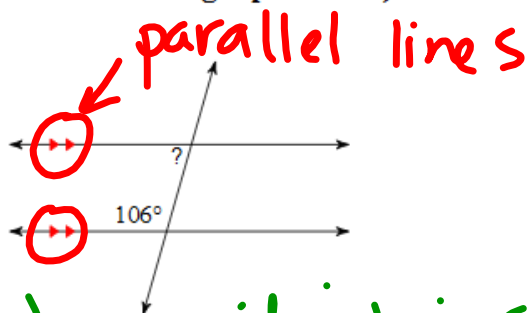
a) same side interior ∠

b) 74°   ← 180 - 106

2)

?

109°
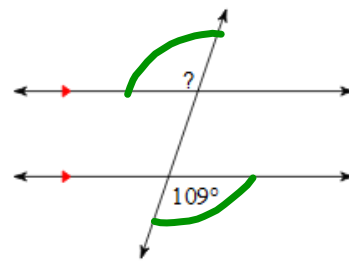
a) alt. ext. ∡ ≅

b) ? = 109°

a) Name each angle pair.   **b) Is it supplementary or congruent?**   **c) Solve for x.**

14)

$12x + 2$

$50°$
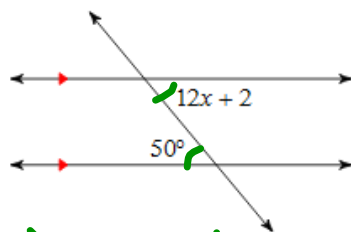
a) alt. interior $\angle$

b) congruent $\cong$

c) $12x + 2 = 50$

$-2 \mid -2$

$\dfrac{12x}{12} \mid \dfrac{48}{12}$

$\boxed{x = 4}$

Assignment tonight:

Try all problems from 2-1 (Pearson online)

> 2-1: MathXL for School: Practice and Problem-Solving

IF YOU DON'T HAVE INTERNET ACCESS...

- *try Assignment 2-1 on pg. 77*
  #12, 13, 15-17, 19, 20, 23, 24, 26

+ finish yellow ws