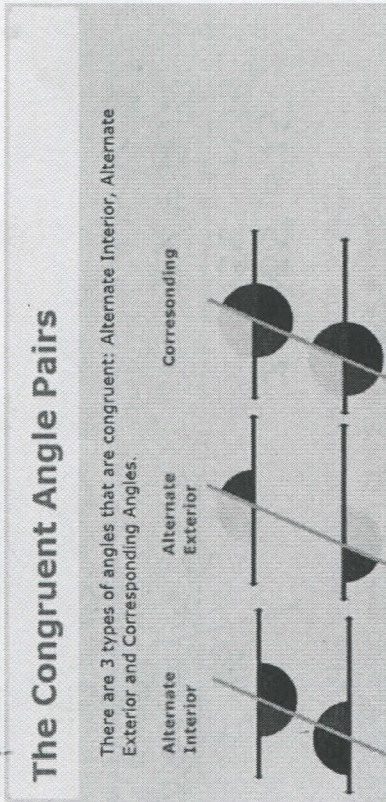
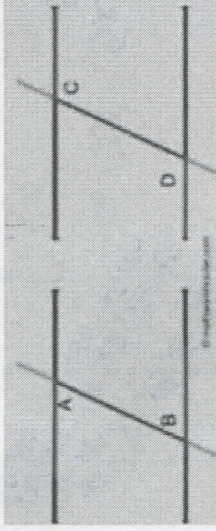


**Congruent Angle Pairs**



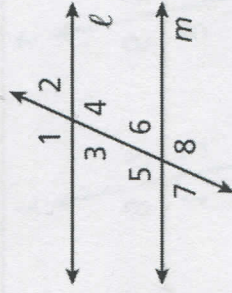
**Z test:** if you can draw a Z or a "backwards Z" then the AIA are the ones that are in the corners of the Z



**TASK 1:** Determine whether the lines are parallel and write a conditional statement.

$m\angle 3 = (4x - 80)^\circ$ ,  
 $m\angle 7 = (3x - 50)^\circ$ ,  $x = 30$

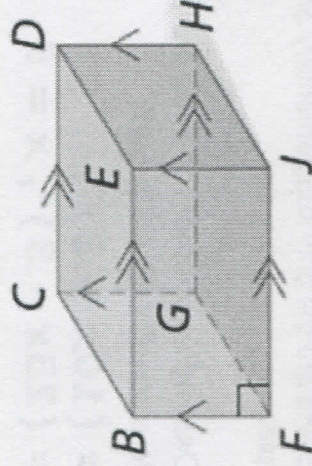
$10x + 8 + 25x - 3 = 180$   
 $35x + 5 = 180$   
 $35x = 175$   
 $x = 5$



IF SSIA R supp. =>  
 ⇔ R //.

**TASK 3:** Identify each of the following: (use correct notation)

- a) A pair of parallel segments  $\overline{CD} \parallel \overline{BE}$ ;  $\overline{BF} \parallel \overline{EJ}$
- b) A pair of skew segments  $\overline{BC}$  &  $\overline{EJ}$
- c) A pair of perpendicular segments  $\overline{BF} \perp \overline{FJ}$
- d) A pair of parallel planes plane  $HJF \parallel$  plane  $CDE$

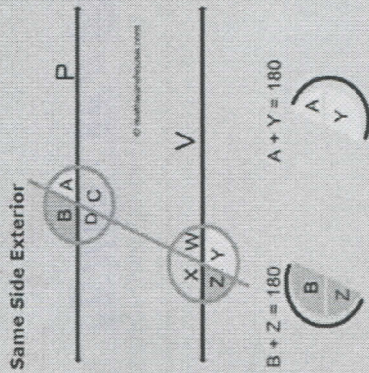
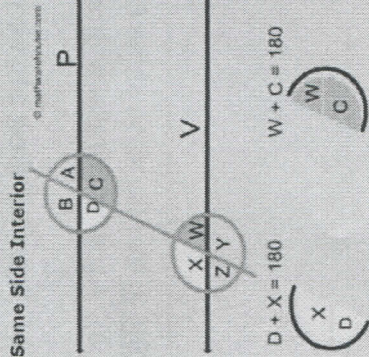




## Supplementary Angle Pairs

### The Supplementary Angle Pairs

There are 2 types of supplementary angles that are formed: Same side interior and same side exterior



**Same-Side:** SSEA and SSIA are the only angles that start with an S and are the only supplementary angles in this chapter.

**TASK 2:** Determine whether the lines are parallel and write a conditional statement.

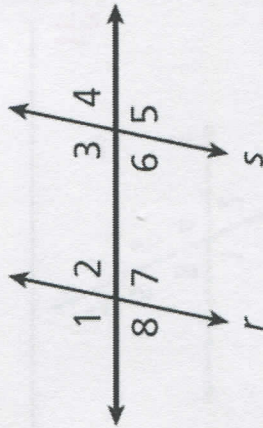
$$m\angle 2 = (10x + 8)^\circ,$$

$$m\angle 3 = (25x - 3)^\circ, x = 5$$

$$4x - 80 = 3x - 50$$

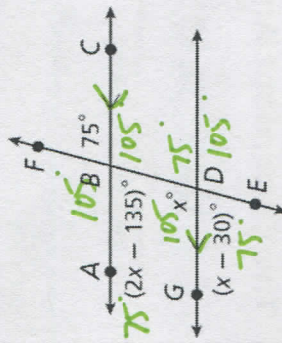
$$x = 30 \checkmark$$

If corr.  $\angle$ 's  
 $R \cong \Rightarrow R \parallel$



**TASK 4:** Find the value of  $x$  and all the angle measures.

(HINT: redraw the image on the board!)



$$2x - 135 = 75$$

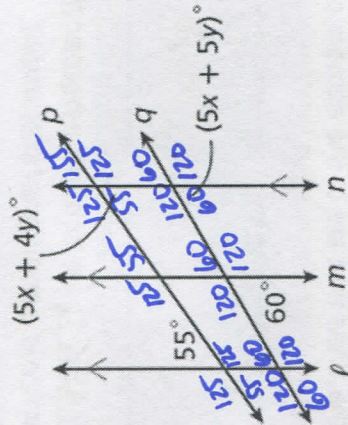
$$+135 \quad +135$$


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$$2x = 210$$

$$x = 105$$

**TASK 5:** Find the values of  $x$  and  $y$ .



$$5x + 4y = 55$$

$$-(5x + 5y = 60)$$


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$$-y = -5$$

$$y = 5$$

$$5x + 4(5) = 55$$

$$5x + 20 = 55$$

$$5x = 35$$

$$x = 7$$

Still need help with: