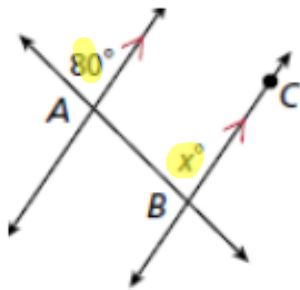


I. Find the value of the missing angle indicated below

1.

parallel lines

corr. \angle s



How do you know?

$$X = 80$$

Corr. \angle s Postulate

2.

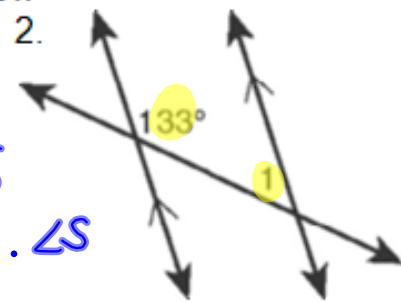
|| lines

S.S.I. \angle s

$$133 + m\angle 1 = 180$$

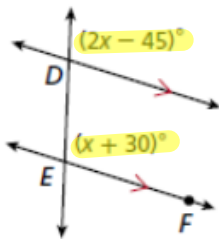
How do you know?

$$m\angle 1 = 47^\circ ; \text{S.S.I. } \angle \text{s thm.}$$



Algebra: Find the value of x in each figure below:

a.



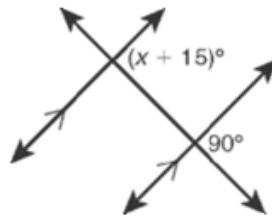
• Parallel

• Corr. \angle s

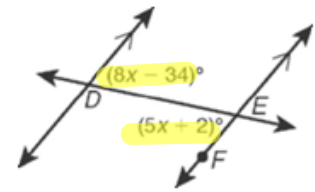
$$2x - 45 = x + 30$$

$$x = 75$$

b.



c.



• \parallel Lines

• A. I. \angle s

$$8x - 34 = 5x + 2$$

$$\frac{3x}{3} = \frac{36}{3}$$

$$x = 12$$

Proving Lines Parallel

I. Example:

A) Tell whether lines m and n must be parallel from the given information. If they are, state your reasoning.

a) $\angle 7 \cong \angle 3$

Alt. Interior \angle s. ; Yes, by the
Converse of A.I. \angle s Thm.

b) $\angle 7 \cong \angle 6$

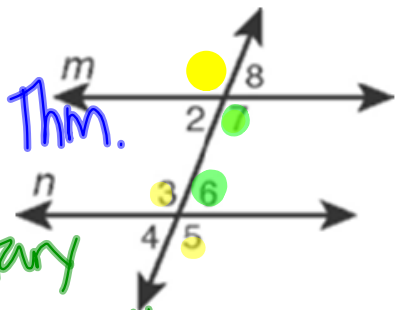
S.S. \angle s

No, S.S. \angle s must be supplementary
to prove $m \parallel n$.

c) $\angle 1 \cong \angle 5$

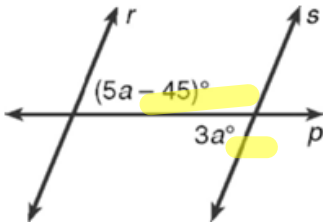
Alt. Ext. \angle s

Yes, by Converse of Alt. Exterior \angle s Thm.



Algebra: Find the value of a that guarantees $r \parallel s$

a)

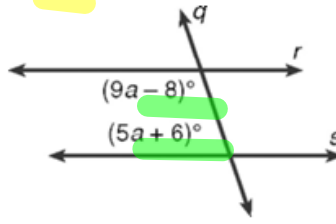


$$5a - 45 = 3a$$

$$2a = 45$$

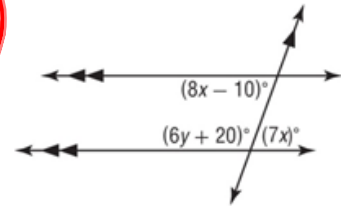
$$a = 22\frac{1}{2}$$

b)



$$(9a - 8) + (5a + 6) = 180$$

c)



$$8x - 10 + 6y + 20 = 180$$

$$7x = 8x - 10$$

