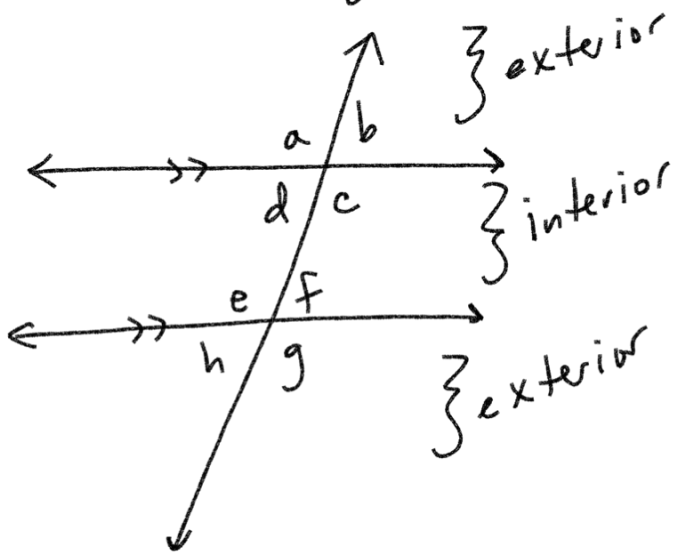
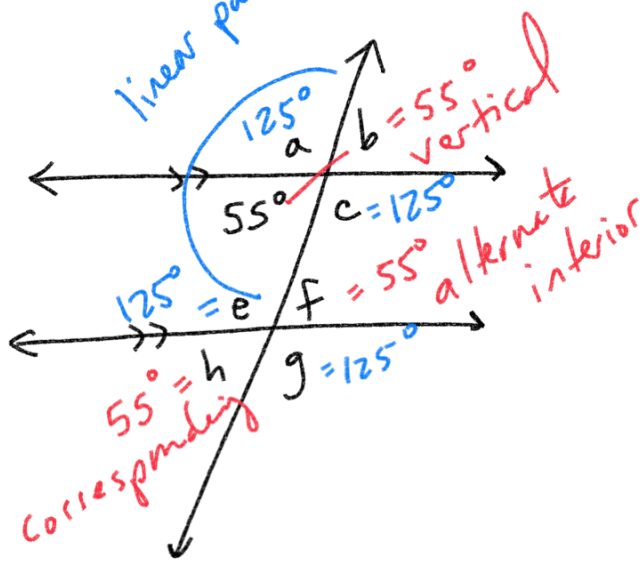


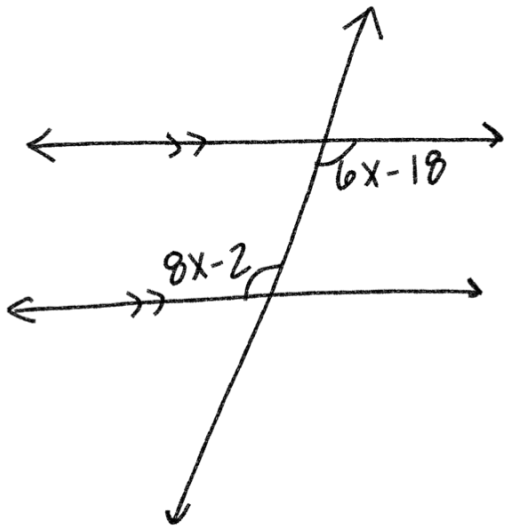
S-G Geometry Session 8 7/5



- $a \hat{=} b$ linear pair
supplemental
- $b \hat{=} d$ vertical angles
congruent
- $b \hat{=} f$ corresponding angles
congruent
- $c \hat{=} e$ alternate interior
congruent
- $d \hat{=} e$ same-side interior
supplemental

$180^\circ = 55^\circ + a$
 $- 55^\circ \quad - 55^\circ$
 $a = 125^\circ$





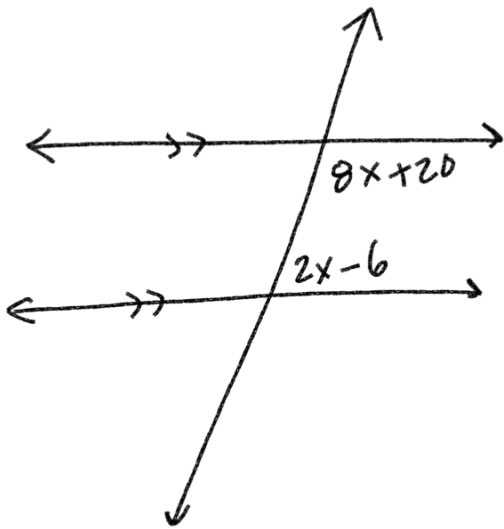
alternate interior angles
congruent

$$6x - 18 = 8x - 2$$

$$\begin{array}{r} -6x \quad -6x \\ -18 = 2x - 2 \\ +2 \quad +2 \end{array}$$

$$\frac{-16}{2} = \frac{2x}{2}$$

$$x = -8$$



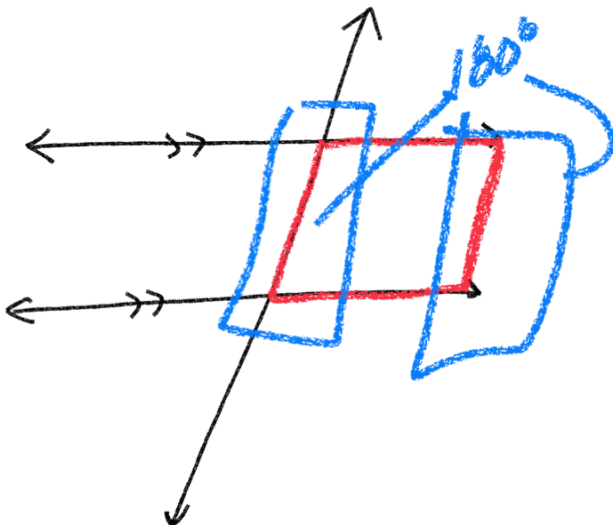
Same-side Interior

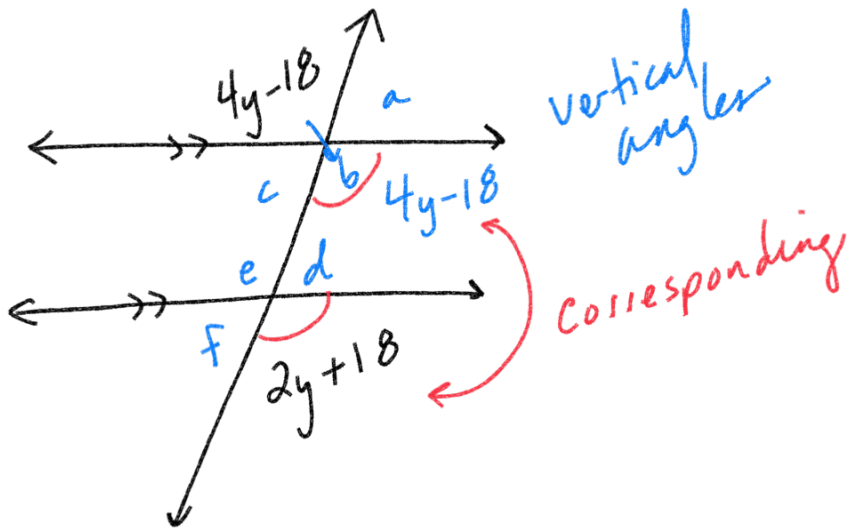
$$8x + 20 + 2x - 6 = 180$$

$$\begin{array}{r} 10x + 14 = 180 \\ -14 \quad -14 \end{array}$$

$$\frac{10x}{10} = \frac{166}{10}$$

$$x = 16.6$$





$$4y - 18 = 2y + 18$$

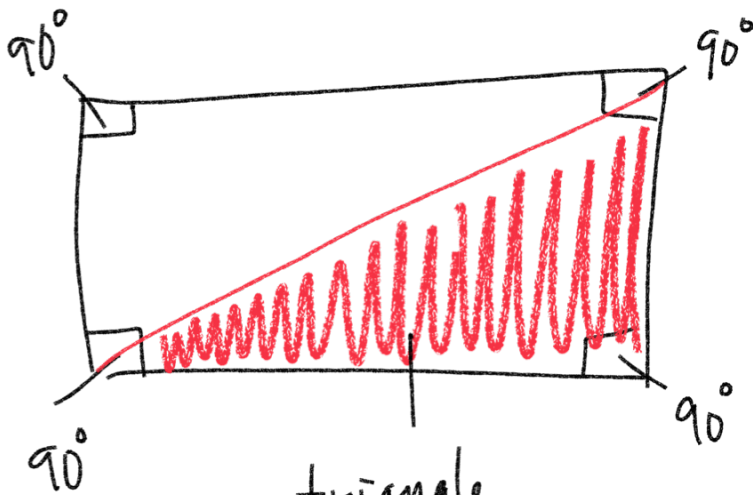
$$+18 \quad +18$$

$$4y = 2y + 36$$

$$-2y \quad -2y$$

$$\frac{2y}{2} = \frac{36}{2}$$

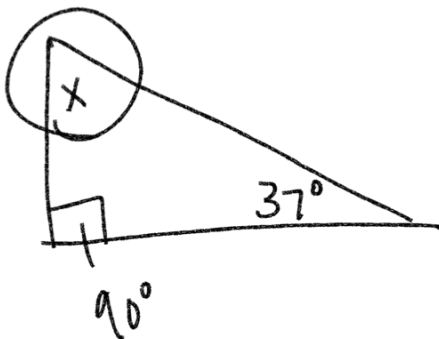
$$y = 18$$



Rectangle

Sum of the interior angles for a rectangle is 360°

Sum of interior angles for a triangle = $\frac{360}{2} = 180^\circ$

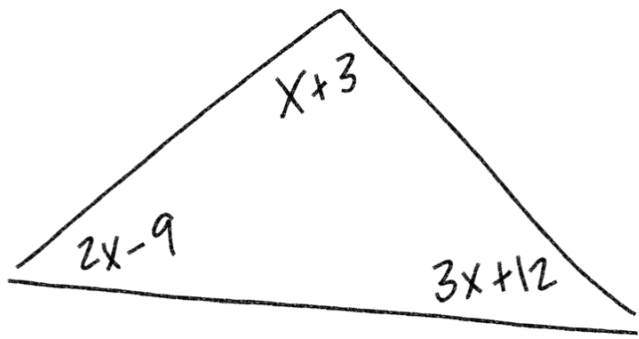


$$90^\circ + 37^\circ + X = 180^\circ$$

$$127^\circ + X = 180^\circ$$

$$-127 \quad -127$$

$$X = 53^\circ$$



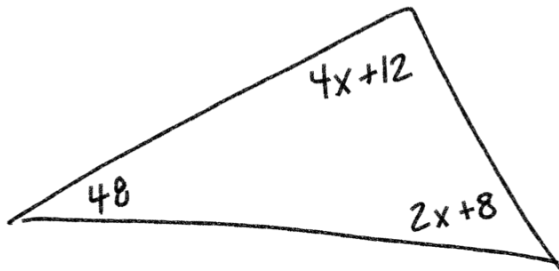
$$2x - 9 + x + 3 + 3x + 12 = 180$$

$$6x + 6 = 180$$

$$\quad -6 \quad -6$$

$$\frac{6x}{6} = \frac{174}{6}$$

$$\boxed{x = 29}$$



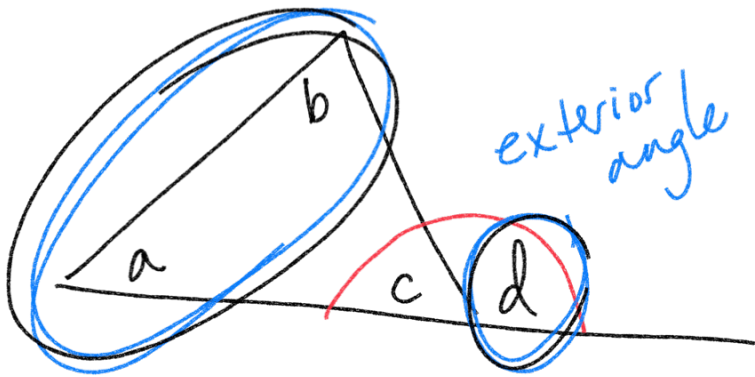
$$48 + 4x + 12 + 2x + 8 = 180$$

$$6x + 68 = 180$$

$$\quad -68 \quad -68$$

$$\frac{6x}{6} = \frac{112}{6}$$

$$\boxed{x = 18.\bar{6}}$$



$$\boxed{a + b} + c = 180^\circ$$

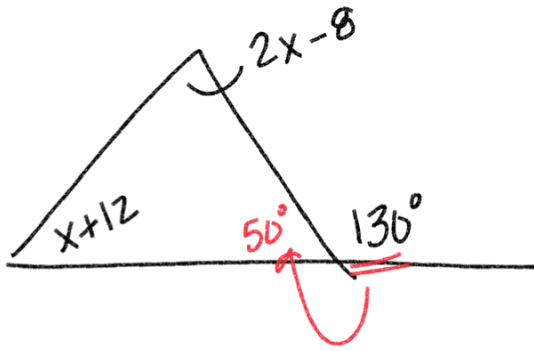
$$\boxed{d} + c = 180^\circ \quad \text{Linear pair}$$

$$a + b = d$$

$$a + b + c = d + c$$

$$\quad -c \quad -c$$

$$a + b = d$$



$$x+12 + 2x-8 = 130$$

$$3x + 4 = 130$$

$$-4 \quad -4$$

$$\frac{3x}{3} = \frac{126}{3}$$

$$x = 42$$

$$x+12 + 2x-8 + 50 = 180$$

$$3x + 54 = 180$$

$$-54 \quad -54$$

$$\frac{3x}{3} = \frac{126}{3}$$

$$x = 42$$