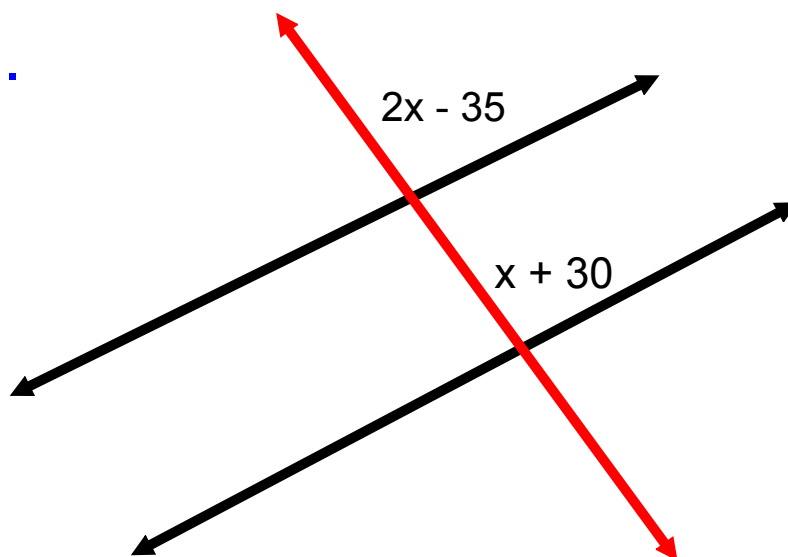


Solve for x and the indicated angles

1.



$$2x - 35 = x + 30$$
$$2x - x = 30 + 35$$
$$x = 65$$

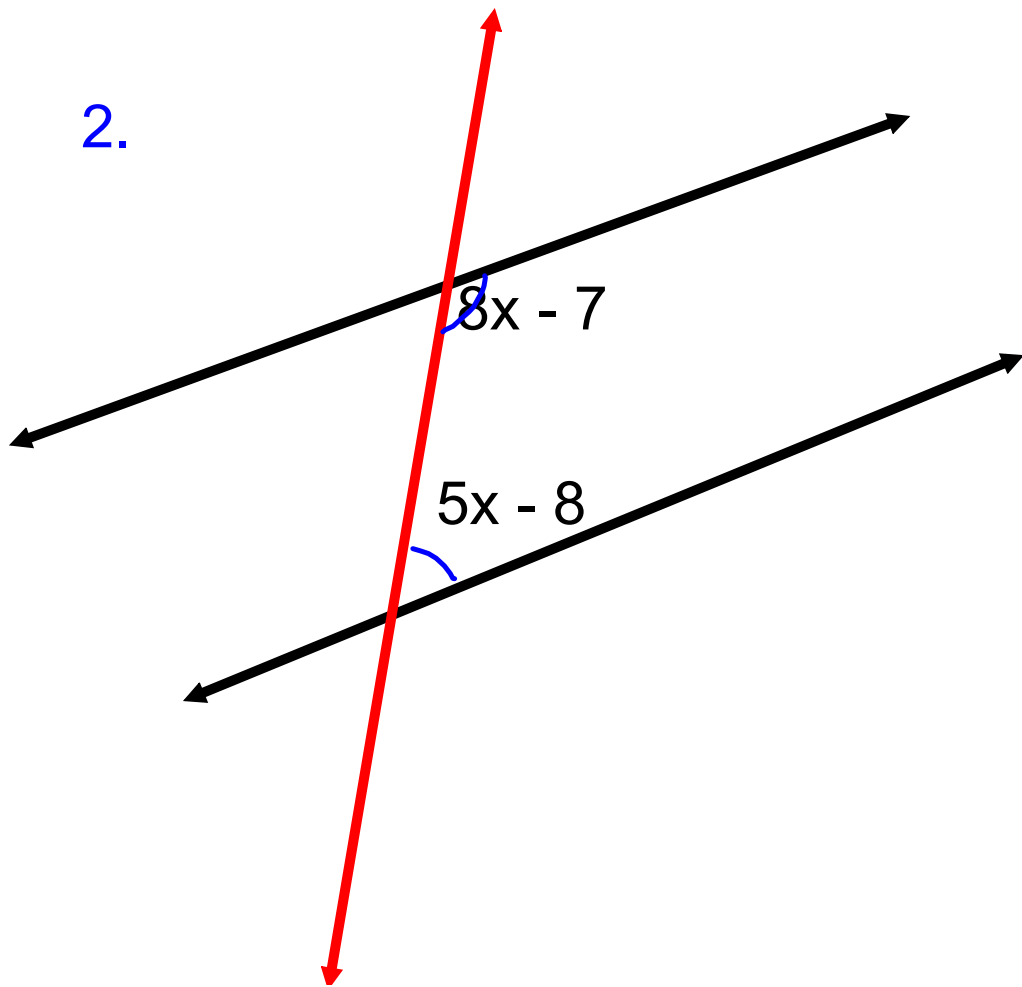
Angle #1

$$2x - 35$$
$$2(65) - 35$$
$$130 - 35$$
$$= 95^{\circ} \checkmark$$

Angle #2

$$x + 30$$
$$65 + 30$$
$$= 95^{\circ} \checkmark$$

2.



$$\begin{aligned}
 \textcircled{8x} - \underline{\underline{7}} + \textcircled{5x} - \underline{\underline{8}} &= 180 \\
 13x - \textcircled{15} &= 180 \\
 13x &= 180 + 15 \\
 \frac{13x}{13} &= \frac{195}{13} \\
 x &= 15
 \end{aligned}$$

Angle #1

$8x - 7$

$8(15) - 7$

$120 - 7$

$= 113^{\circ}$

Angle #2

$5x - 8$

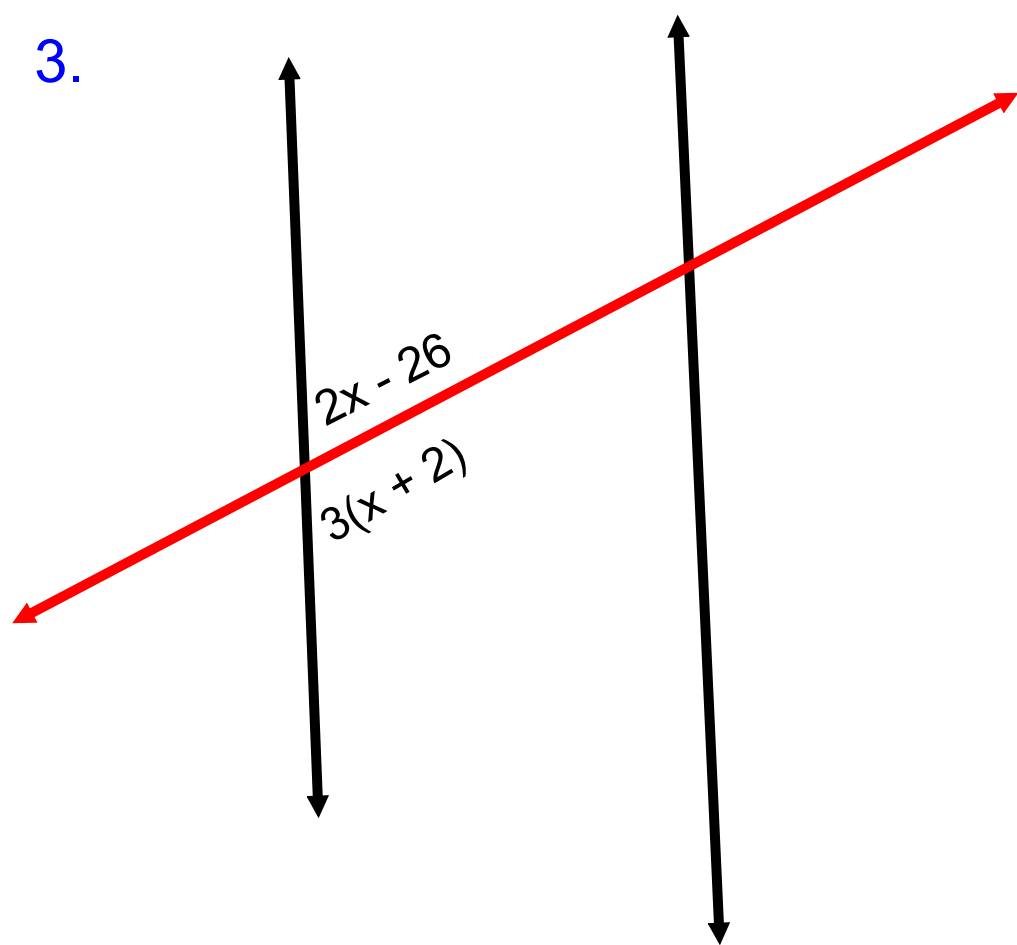
$5(15) - 8$

$75 - 8$

$= 67^{\circ}$

$113 + 67 = 180^{\circ}$

3.



$$2x - 26 + 3(x + 2) = 180$$

$$\underline{\underline{2x}} - 26 + \underline{\underline{3x}} + 6 = 180$$

$$5x - 20 = 180$$

$$5x = 180 + 20$$

$$\frac{5x}{5} = \frac{200}{5}$$

$$x = 40$$

Angle #1

$2x - 26$

$2(40) - 26$

$80 - 26$

$= 54^{\circ}$

Angle #2

$3(x + 2) \quad 54 + 126 = 180^{\circ}$

$3(40 + 2)$

$3(42)$

$= 126^{\circ}$

