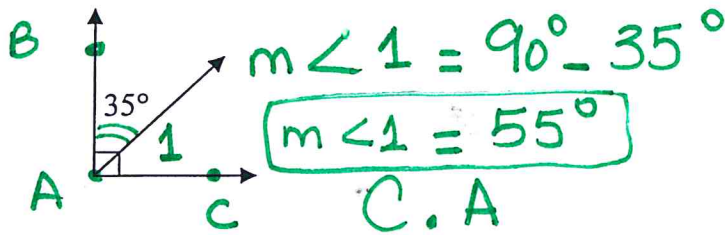
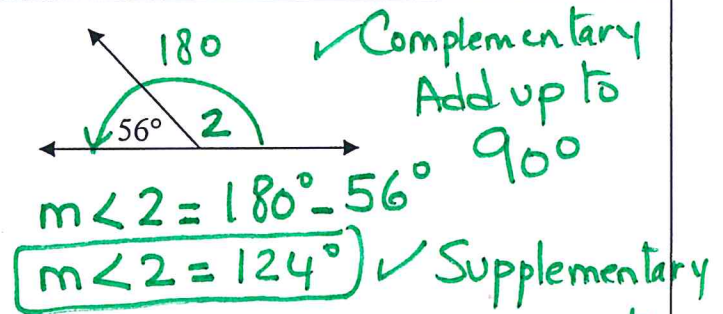


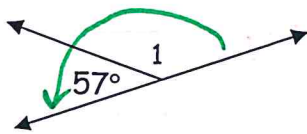
I can find the measure of a missing angle using angles relations



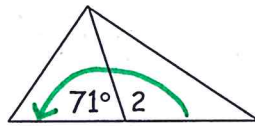
$m\angle BAC = 90^\circ$



$m\angle EFG =$



$m\angle MLP = 180^\circ$

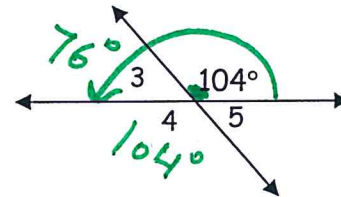


$m\angle 2 = 180^\circ - 71^\circ$
 $m\angle 2 = 109^\circ$

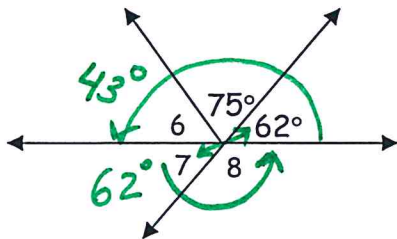
$m\angle 3 = 180^\circ - 104^\circ = 76^\circ$

$m\angle 4 = 104^\circ$

$m\angle 5 = 76^\circ$



Vertical opposites are equal

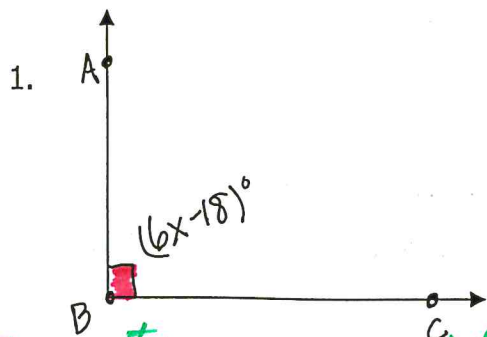


$m\angle 6 = 180^\circ - (75^\circ + 62^\circ) = 43^\circ$

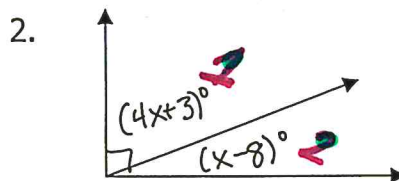
$m\angle 7 = 62^\circ$

$m\angle 8 = 180^\circ - 62^\circ = 118^\circ$

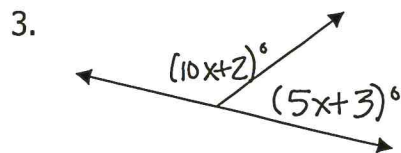
I can Write an equation and then solve the equation to find missing angles. I can write a justification



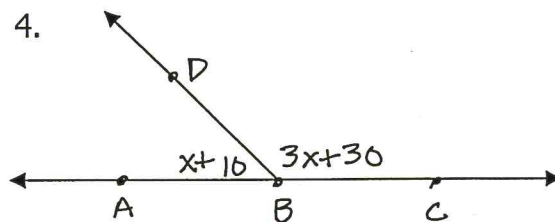
Equation	Justification
$6x - 18 = 90$ $+18 \quad +18$ $\frac{6x}{6} = \frac{108}{6}$	Right angle Add 18 divide by 6
$x = 18$	Answer



Equation	Justification
$4x + 3 + x - 8 = 90$ $5x - 5 = 90$ $+5 \quad +5$ $\frac{5x}{5} = \frac{95}{5}$	Complementary Angle C.L.T Add 5 divide by 5
$x = 19$	Answer

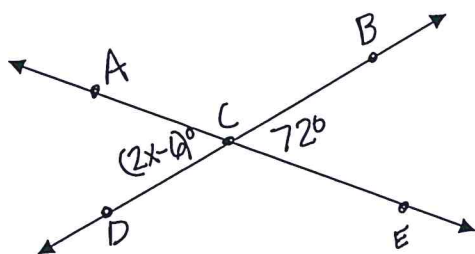


Equation	Justification
$10x + 2 + 5x + 3 = 180$ $15x + 5 = 180$ $-5 \quad -5$ $\frac{15x}{15} = \frac{175}{15}$	Supp Angle C.L.T Subtract 5 divide 15
$x = 11.6$	Answer



Equation	Justification
$x + 10 + 3x + 30 = 180$ $4x + 40 = 180$ $-40 \quad -40$ $\frac{4x}{4} = \frac{140}{4}$	
$x = 35$	

5.



Equation

Justification

$$\begin{array}{r} 2x - 6 = 72 \\ + 6 \quad + 6 \\ \hline \end{array}$$

Vertical Angles
Add 6

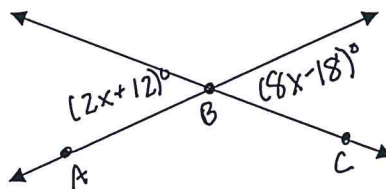
$$\begin{array}{r} 2x = 78 \\ \hline 2 \quad 2 \end{array}$$

divide by 2

$$x = \boxed{39}$$

Answer

6.



Equation

Justification

$$\begin{array}{r} 2x + 12 = 6x - 18 \\ - 2x \quad - 2x \\ \hline \end{array}$$

Vertical Angles
minus 2x

$$\begin{array}{r} 12 = 6x - 18 \\ + 18 \quad + 18 \\ \hline \end{array}$$

Add 18

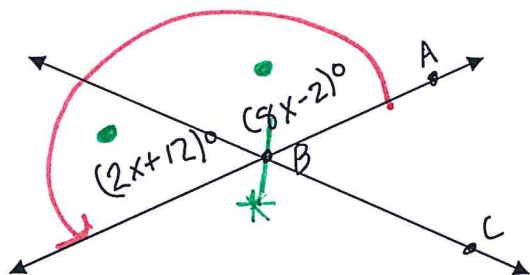
$$\begin{array}{r} 30 = 6x \\ \hline 6 \quad 6 \end{array}$$

divide by 6

$$x = \boxed{5}$$

Answer.

7.



Equation

Justification

$$(2x+12) + (5x-2) = 180$$

Supp. Angle

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

C.L.T

minus 10

divide by 10

$$\begin{array}{r} 10x = 170 \\ \hline 10 \quad 10 \end{array}$$

$$x = \boxed{17}$$

Answer

8. $\angle 1$ and $\angle 2$ are complementary. $m\angle 1 = 2x + 7$ and $m\angle 2 = 4x - 19$. Find the measure of each angle.

Equation

Justification

$$2x + 7 + 4x - 19 = 90$$

Complementary
Angles.

$$\begin{array}{r} 6x - 12 = 90 \\ + 12 \quad + 12 \\ \hline \end{array}$$

C.L.T

Add 12

$$\begin{array}{r} 6x = 102 \\ \hline 6 \quad 6 \end{array}$$

divide by 6

$$x = \boxed{17}$$

Answer.

9. $\angle 3$ and $\angle 4$ are supplementary. $m\angle 3 = 5x + 22$ and $m\angle 4 = 7x + 2$. Find the measure of each angle

