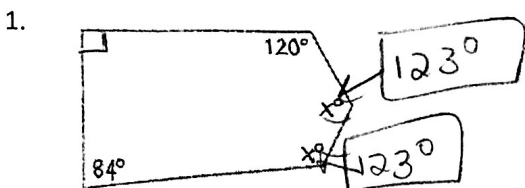


Name: Kelly

Polygons and Angles – Finding the missing measure

Find the value of x and the unknown angle measures

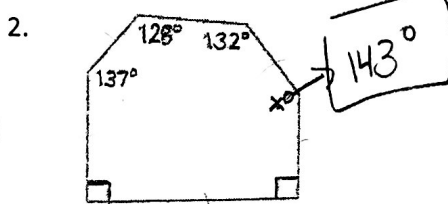


Angle Sum: $3 \cdot 180 = 540$

$$90 + 84 + 120 + x + x = 540$$

$$294 + 2x = 540$$

$$\begin{array}{r} 294 \\ -294 \\ \hline 2x = 246 \\ \frac{2x}{2} = \frac{246}{2} \\ x = 123 \end{array}$$

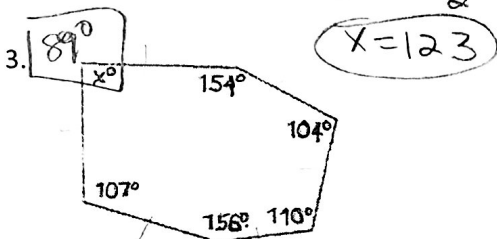


Angle Sum: $4 \cdot 180 = 720$

$$137 + 128 + 132 + 90 + 90 + x = 720$$

$$577 + x = 720$$

$$\begin{array}{r} 577 \\ -577 \\ \hline x = 143 \end{array}$$

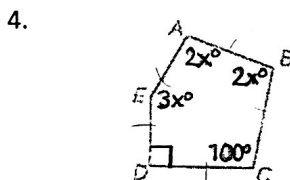


Angle Sum: $4 \cdot 180 = 720$

$$107 + 156 + 110 + 104 + 154 + x = 720$$

$$631 + x = 720$$

$$\begin{array}{r} 631 \\ -631 \\ \hline x = 89 \end{array}$$



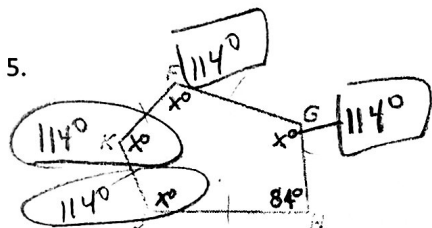
Angle Sum: $3 \cdot 180 = 540$

$$3x + 2x + 2x + 100 + 90 = 540$$

$$7x + 190 = 540$$

$$\begin{array}{r} 7x + 190 = 540 \\ -190 \quad -190 \\ \hline 7x = 350 \\ \frac{7x}{7} = \frac{350}{7} \\ x = 50 \end{array}$$

$\angle A = 100^\circ$
 $\angle B = 100^\circ$
 $\angle E = 150^\circ$

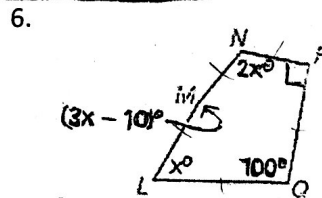


Angle Sum: $3 \cdot 180 = 540$

$$x + x + x + x + 84 = 540$$

$$4x + 84 = 540$$

$$\begin{array}{r} 4x + 84 = 540 \\ -84 \quad -84 \\ \hline 4x = 456 \\ \frac{4x}{4} = \frac{456}{4} \\ x = 114 \end{array}$$



Angle Sum: $3 \cdot 180 = 540$

$$(3x - 10) + 2x + 90 + 100 + x = 540$$

$$6x + 180 = 540$$

$$\begin{array}{r} 6x + 180 = 540 \\ -180 \quad -180 \\ \hline 6x = 360 \\ \frac{6x}{6} = \frac{360}{6} \\ x = 60 \end{array}$$

$\angle N = 120^\circ$
 $\angle L = 60^\circ$
 $\angle M = 170^\circ$