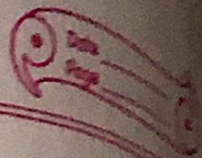


2CW
29/1/21

Homework



$$23) 5x + x + 80^\circ + 123^\circ + 85^\circ = 360^\circ$$

(Angles at a point)

$$\Rightarrow 6x + 80^\circ + 123^\circ + 85^\circ = 360^\circ$$

$$\Rightarrow 6x + 288^\circ = 360^\circ$$

$$\Rightarrow 6x = 360^\circ - 288^\circ = 72^\circ$$

$$\Rightarrow x = \frac{72^\circ}{6} = 12^\circ$$

$$\text{Now } \angle AOB = 5x = 5 \times 12^\circ = 60^\circ$$

$$\angle BOC = x = 12^\circ$$

$$24) \frac{3}{2}y^\circ + 2y^\circ + 2y^\circ + \frac{3}{2}y^\circ = 360^\circ$$

$$\Rightarrow \frac{7}{2}y^\circ + 2y^\circ + 2y^\circ + \frac{5}{2}y^\circ = 360^\circ$$

$$\Rightarrow \frac{7}{2}y^\circ + \frac{5}{2}y^\circ + 4y^\circ = 360^\circ$$

$$\Rightarrow \frac{12}{2} + 4y^\circ = 360^\circ$$

$$= 6y^\circ + 4y^\circ = 360^\circ$$

$$\therefore 10^{\circ} = 360^{\circ}$$

$$\therefore y = \frac{360^{\circ}}{10} = 36^{\circ}$$

$$\begin{aligned} \therefore \angle AOB &= 3\frac{1}{2}y^{\circ} = \frac{7}{2}y^{\circ} = \frac{7}{2} \times 36^{\circ} \\ &= 126^{\circ} \end{aligned}$$

$$\angle BOC = 2y^{\circ} = 2 \times 36^{\circ} = 72^{\circ}$$

$$\angle COD = 2y^{\circ} = 2 \times 36^{\circ} = 72^{\circ}$$

$$\angle DOA = 2\frac{1}{2}y^{\circ} = \frac{5}{2}y^{\circ}$$

$$= \frac{5}{2} \times 36^{\circ} = 90^{\circ}$$