HCW
29/9/21

Homework

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

(Angles at a point)

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

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

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

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

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

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

24) $3\frac{1}{2}y^\circ + 2y^\circ + 2y^\circ + 2\frac{1}{2}y^\circ = 360^\circ$

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

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

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

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

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

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

$\therefore$ $\angle AOB = 3\frac{1}{2}y^\circ = \frac{7}{2}y^\circ = \frac{7}{2} \times 36^\circ$

$= 126^\circ$

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

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

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

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