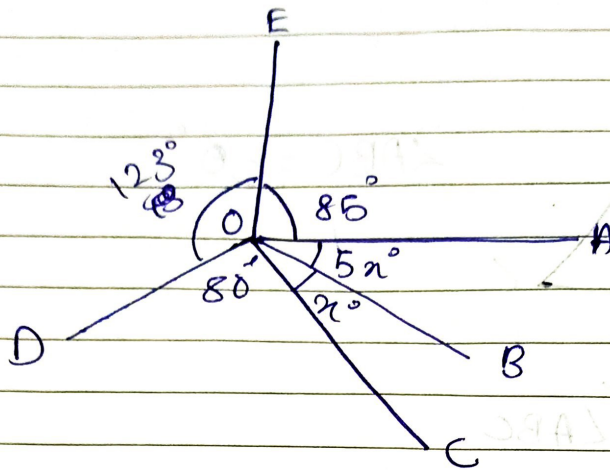


29/09/2021

# lines and angles Homework 1



23)



$$A = 85^\circ \text{ (vertically opposite angles)}$$

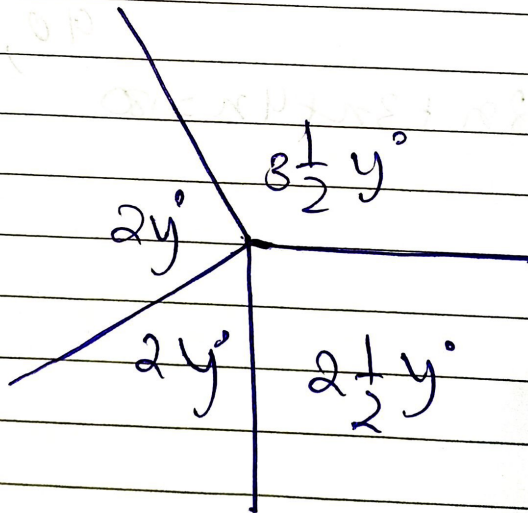
$$\angle AOB = B = 5n$$
$$= 85 + 5 = 90^\circ$$

$$\angle AOB = \frac{360}{5} = 60^\circ \text{ (Angles around a point)}$$

$$= 5n = 5 \times 12 = 60$$

$$n = \frac{60}{5} = 12$$

24)



$$3\frac{1}{2}y + 2y + 2y + 2\frac{1}{2}y = 360 \text{ (Angles around a point)}$$

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

$$2 \cdot \frac{7y}{2} + 4y + 2y + \frac{5y}{2} = 360$$

$$= \frac{20y}{2} = 360$$

$$= 20y = 360 \times 2 = 720$$

$$= y = \frac{720}{20} = 36$$

$$2y = 2 \times 36 = 72$$

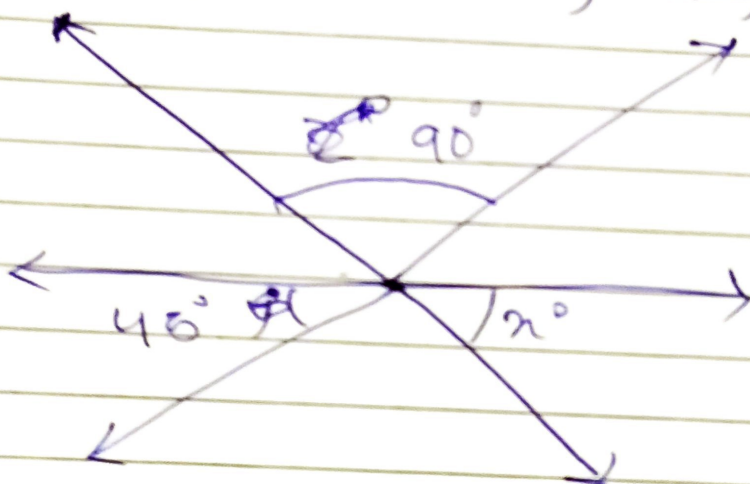
$$2y = 2 \times 36 = 72$$

$$\frac{7}{2} y = \frac{7}{2} \times 36 = 126$$

$$\frac{5}{2} y = \frac{5}{2} \times 36 = 90$$

The angles are :  $72^\circ, 72^\circ, 126^\circ, 90^\circ$

25)



i)

$n = 45^\circ$  (Vertically opposite angle)

ii)

$$6n + 3y = 9ny$$

$$\frac{45}{9ny} = 5$$