

$$\angle AOB = 123^\circ + 85^\circ + 80^\circ + 5x^\circ + x^\circ = 288 + 6x = 360$$

$$= 360 - 288$$

$$288 + 6x = 360$$

$$6x = 360 - 288$$

$$6x = 72$$

$$x = \frac{72}{6} = 12$$

$$x = 12$$

$$\angle AOB = 5x = 12 \times 5 = 60$$

$$\angle BOC = x = 12$$

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

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

$$\frac{8y}{2} + \frac{12y}{2} = 360$$

$$y = \frac{360}{2} = 180$$

$$y = 36$$

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

$$\frac{5y}{2} = \frac{5}{2} \times \overset{18}{\cancel{36}} = 90^\circ$$

$$\frac{7y}{2} = \frac{7}{2} \times \overset{18}{\cancel{36}} = 126^\circ$$

$$90^\circ + y^\circ + x^\circ = 180^\circ$$

$$90^\circ + 45^\circ + x = 135^\circ + x = 180$$

$$x = 180 - 135 = 45^\circ$$

$$x = 45^\circ$$

$$x = 3a$$

$$y = 5x = 225^\circ$$

$$6x = 90^\circ \div 6$$

$$x = 15$$

$$15 = 3a = 15 \quad a = 5$$

$$15 + 5$$