



③

		1	2	3	4	5	
no. of spokes	x_i	4	6	8	10	12	15
angle between a pair of consecutive spokes	y_i	90°	60°	y_3	y_4	y_5	y_6
							40°

$$x_1 y_1 = 4 \times 90$$

$$= 360$$

$$x_2 y_2 = 6 \times 60$$

$$= 360$$

$$\therefore x_1 y_1 = x_2 y_2$$

$\therefore x$ and y vary inversely

$$x_1 y_1 = x_3 y_3$$

$$4 \times \cancel{90}^{\cancel{45}} = \cancel{28} y_3$$

$$\Rightarrow y_3 = 45^\circ$$

$$x_1 y_1 = x_4 y_4$$

$$4 \times \cancel{90} = \cancel{10} y_4$$

$$\Rightarrow y_4 = 36^\circ$$

$$x_1 y_1 = x_5 y_5$$

$$4 \times \cancel{90}^{\cancel{30}} = \cancel{12} y_5$$

$$\Rightarrow y_5 = 30^\circ$$

$$x_1 y_1 = x_6 y_6$$

$$4 \times \cancel{90}^{\cancel{6}} = \cancel{15} y_6$$

$$\Rightarrow y_6 = 24^\circ$$

$$x_1 y_1 = x_7 y_7$$

$$\cancel{4} \times \cancel{90} = x_7 \times \cancel{40}$$

$$\Rightarrow x_7 = 9$$