

$$\Sigma x = 100 \cos 25^\circ + 200 \cos 35^\circ + 300 \cos 25^\circ = 11.95$$

$$\Sigma y = 100 \sin 25^\circ + 200 \sin 35^\circ + 300 \sin 25^\circ = 83.44$$

$$R = \sqrt{11.95^2 + 83.44^2} = 84.19$$

$$\theta = \tan^{-1} \frac{83.44}{11.95} = 77.7^\circ$$

