

Graphical Analysis

$$\frac{2.45 \text{ N}}{2 \text{ in}} = \frac{? \text{ N}}{3.25 \text{ in}}$$

$$F_R = 3.93 \text{ N}$$

$$\theta = 70^\circ$$



$$\Sigma F_x = -2.45 \cos 130^\circ + 3.43 \cos 30^\circ = 1.4 \text{ N}$$

$$\Sigma F_y = 2.45 \sin 130^\circ + 3.43 \sin 30^\circ = 3.6 \text{ N}$$

$$F_R = \sqrt{3.6^2 + 1.4^2}$$

$$F_R = 3.86 \text{ N}$$

$$\theta = \tan^{-1}\left(\frac{3.6}{1.4}\right)$$

$$\theta = 68.75^\circ$$

