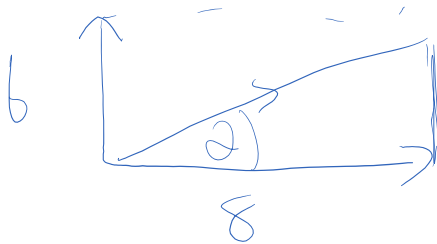


$$\begin{aligned}\Sigma F &= \sqrt{3^2 + 15^2} \\ &= 15.3\text{N}\end{aligned}$$

The resultant force is 15.3N at an angle of 78.7° vertical



$$\begin{aligned}\tan \theta &= \frac{15}{3} \\ \tan \theta &= 5 \\ \theta &= \tan^{-1}(5) \\ &= 78.7^\circ\end{aligned}$$



$$\Sigma F = \sqrt{6^2 + 8^2} = 10\text{N}$$

$$\tan \theta = \frac{6}{8} = \theta = 36.9^\circ$$



$$\begin{aligned}\Sigma F &= \sqrt{4^2 + 15^2} \\ &= 15.52\end{aligned}$$



$$\{ F = \sqrt{8^2 + 7^2} \}$$

$$\{ F = 10.6 \text{ N} \}$$

$$\tan \theta = \frac{8}{7} = 1.14$$

$$\theta = 48.8$$

$$\{ 5^2 \}$$

$$\tan \theta = \frac{4}{15} = 0.26$$

$$\theta =$$