

**1-15\***

From a free-body diagram of the bracket, the equilibrium equations

$$\curvearrowright \Sigma M_A = 0: \quad 18B - [(12)(10)/2](12/3) = 0$$

$$\rightarrow \Sigma F_x = 0: \quad A_x + B = 0$$

$$\uparrow \Sigma F_y = 0: \quad A_y - [(12)(10)/2] = 0$$

Are solved to get the forces

$$B = 13.333 \text{ lb}$$

$$A_x = -13.333 \text{ lb}$$

$$A_y = 60.0 \text{ lb}$$

$$\mathbf{A} = 61.464 \text{ lb} \cong 61.5 \text{ lb} \quad \angle 77.47^\circ \quad \text{Ans.}$$

$$\mathbf{B} = 13.33 \text{ lb} \rightarrow \quad \text{Ans.}$$

