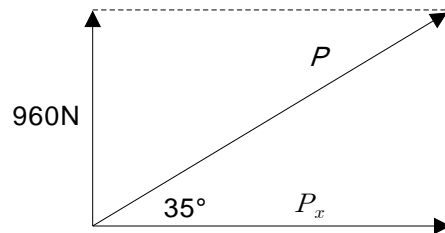


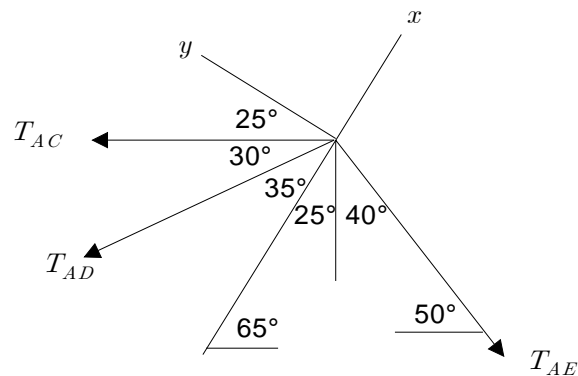
<2.7~2.8 >

2.26



$$(a) P_y = P \sin \theta \quad P = \frac{P_y}{\sin \theta} = \frac{960 \text{ N}}{\sin 35^\circ} = 1673.7 \text{ N} \quad P = 1674 \text{ N}$$
$$(b) P_x = P \cos \theta = (1673.7 \text{ N}) \cos 35^\circ = 1371.0 \text{ N} \quad P_x = 1371 \text{ N}$$

2.41



$$T_{AC} = 4 \text{ kN}, \quad T_{AD} = 5.2 \text{ kN}$$

$$(a) F_y = 0$$

$$T_{AC} \cos 25^\circ + T_{AD} \sin 35^\circ - T_{AE} \sin 65^\circ = 0$$

$$T_{AE} = \frac{1}{\sin 65^\circ} (T_{AC} \cos 25^\circ + T_{AD} \sin 35^\circ)$$

$$= \frac{1}{\sin 65^\circ} [(4 \text{ kN}) \cos 25^\circ + (5.2 \text{ kN}) \sin 35^\circ] = 7.2909 \text{ kN}$$

$$T_{AE} = 7.29 \text{ kN}$$

$$(b) F_x = R$$

$$R = -T_{AC} \sin 25^\circ - T_{AD} \cos 35^\circ - T_{AE} \cos 65^\circ$$

$$= -(4 \text{ kN}) \sin 25^\circ - (5.2 \text{ kN}) \cos 35^\circ - (7.2909 \text{ kN}) \cos 65^\circ = -9.0313 \text{ kN}$$

$$R = 9.03 \text{ kN}$$