CHAPTER 4

4.3 (a) 325 lb↑. (b) 1175 lb↑.

4.7 (a) 37.9 N↑. (b) 373 N↑.

4.15 (a) 2 kN. (b) 2.32 kN ∠46.4°.

4.20 445→.

4.30 (a) 130.0 N. (b) 224 N ⬋2.0°.

4.53 (a) $P = \frac{1}{3}Q(a \cos \theta + d)/(a \sin \theta)$. (b) 6.84 lb.

4.78 **B** = 375 N, theta = 36.9 deg

4.92 $\mathbf{A} = (56.0 \text{ N})\mathbf{j} + (14.4 \text{ N})\mathbf{k}$;
$\mathbf{D} = (24.0 \text{ N})\mathbf{j} + (33.6 \text{ N})\mathbf{k}$.

4.116 (a) 118.8 lb.
(b) $\mathbf{A} = (93.8 \text{ lb})\mathbf{i} + (32.5 \text{ lb})\mathbf{j} + (70.8 \text{ lb})\mathbf{k}$;
$\mathbf{B} = (5 \text{ lb})\mathbf{j} - (8.33 \text{ lb})\mathbf{k}$.

4.136 181.7 lb.