

Chapter 16:

16.2 $3.57 \text{ m/s}^2 \leftarrow$.

16.8 (a) $2.55 \text{ m/s}^2 \rightarrow$. (b) $h \leq 1.047 \text{ m}$.

16.15: $\theta = 51.34 \text{ deg}$

16.28 $32.7 \text{ rad/s}^2 \uparrow$.

16.33: $I = 112.1 \text{ kg}\cdot\text{m}^2$

16.38 (a) $1.971 \text{ ft/s}^2 \uparrow$. (b) $1.971 \text{ ft/s}^2 \downarrow$.

16.49 (a) 12.00 in. from A. (b) $9.20 \text{ ft/s}^2 \rightarrow$.

16.56 A: $0.273 \text{ m/s}^2 \downarrow$, B: $2.01 \text{ m/s}^2 \downarrow$.

16.64 (a) $-1.5(\text{g/L})$, (b) 0.5 g, (c) -g

16.77 (a) 24.0 in. (b) $8.05 \text{ rad/s}^2 \downarrow$.

16.96 $\tan \beta = \mu_s(1 + r^2/\bar{k}^2)$.

16.101 (a) slides. (b) $12.88 \text{ rad/s}^2 \uparrow$, $3.22 \text{ ft/s}^2 \leftarrow$.

16.118 (a) 97.8 N \uparrow . (b) 60.3 N \uparrow .

16.126 60.0 N \rightarrow .