1 Ch. 8 answers to even numbered problems:

6. F=6430 N

14.
a) 2.50 m/s

b) 37.5 kJ

16. 0.556 m [*Hint: use eqn 8.22*]

20. 7.94 cm (I hope this is right...)

48.

$$v_i = d\sqrt{\frac{g}{2h}}\left(1 + \frac{M}{m}\right)$$

2 Ch. 10

14. a) I=92 kg·m^2, KE=184 J

b) v_{4kg}= 6 m/s, v_{2kg}=4 m/s, v_{3kg}=8 m/s, KE=184 J

16. 2.61 $\times 10^{-5}$ J

20. 167 N·m

22. $-7\hat{i} + 16\hat{j} - 2\hat{k}$

42. 0.191 kg·m^2/s

6. 51.7 rad/s^2

8. I got $\sim 10^7$ revolutions/year.

32. $\vec{F}_{crane,A} = 1.27 \times 10^5$ N (down), $\vec{F}_{crane,B} = 6.47 \times 10^5$ N (down)

54. The disk will win because $v_h = \sqrt{gh}$ and $v_d = \sqrt{\frac{4}{3}gh}$