1 Ch. 6 answers to even numbered problems:

2. W=1600 J

4.
a) W_g=3.28 $\times 10^{-2}$ J

b) W_{ar}=-3.28 $\times 10^{-2}$ J

36.
a) W=2.06 $\times$ 10^4 J

b) P=686 W

12. v= 0.3 m/s

34. I think this problem is a little wacky because the applied work should depend on both the change in potential and kinetic energy. But this chapter doesn't get into potential energy yet. So it's asking you to solve something you shouldn't be able to do yet. I guess you could do it this way: $\Delta KE = W_{applied} + W_g$ and use $W_g = F_g \cdot \Delta y$. In any case this problem is totally hard. Anyways the answer is:

a)5.9 kW

b) 3.7 kW

38. a) I got 577 flights. That sounds like a lot. But I think I did it right.

b) 90.5 W

42. 90 J

2 Ch 7 answers

24. 2.56 kJ

32.

a) $\frac{A}{2}x^2 - \frac{B}{3}x^3$

b) $2.5 \cdot A - 6.3 \cdot B$

36. 3.12×10^7 J

2.

a. 800 J

b. 107 J

c. 0

16.

$$d = \frac{\frac{1}{2}kx^2 - mgx\sin\theta}{mg\sin\theta}$$

28. 3.45 kJ