

Your Name _____ Section _____

HOMEWORK #7 - 8.01 MIT - Prof. Kowalski

Due 4:00PM Thursday Oct. 23, 2003

Topics: Potential Energy Curves, Momentum and Center of Mass

Any following problems designated with a bold number indicate problems from Young and Freedman 11th edition.

1. **7.61**
2. **7.68**
3. **7.76** see the Mastering Physics review problem for Test #2 *Work and Potential Energy on a Sliding Block with Friction* which has several elements of similarity; so does the MP problem about shooting the mass up an incline with a spring gun.
4. **7.78** The “path” referred to in the problem is really the time-dependent *position* of the particle. The key insight is to realize that the force is radial and independent of time; hence the potential is time independent.
5. **7.86**