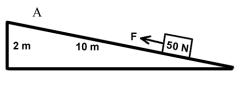
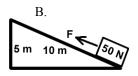
PreAP: due Tues., Nov 17 (Assigned: Tues., Nov 15) Reg: due Wed., Nov 18 (Assigned: Wed., Nov 16)

Test Review Ch 5

- 1. Use the pictures at the right to answer the following:
 - A. What kind of simple machine is shown?
 - B. Which one has the greatest MA?
 - C. Label Fin, Fout, De, and Dr for picture B.
 - D. Find the MA for picture A.
- 2. A toy company once claimed that one of their superballs would rebound higher than where it was dropped. Respond.

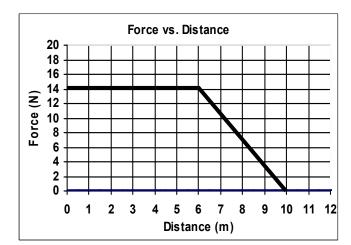




- 3. A simple machine has an MA of 5.
 - A. Does the machine increase or decrease your force?
 - C. Which is bigger: De or Dr?
 - E. Which is bigger: Win or Wout?

- B. Which is bigger: Fin or Fout?
- D. Which is bigger: Time in or Time out?
- F. Which is bigger: Power in or Power out?
- 4. Using a pulley, a 30 N force is required to lift a 180 N crate 2 meters. If you push down 15 m, how efficient is the pulley?
- 5. Which of the following simple machines increases force (I), decreases force (D) or is neutral (N):
 - A. ____ MA = 2.5
- B. MA = 1
- C. MA = 4.2
- D. _____ MA = 0.2

6. A 2 kg object is moving 6 m/s. Use the graph at the right to find out how fast it is going afterward.



- 7. A ball is dropped from 35 m up. How fast is it moving 10 m above the ground. (There is no air friction.)
- 8. A 3 kg object is going 10 m/s. If the $\mu = 0.25$, find how far it slides before friction stops it.
- 9. A 4 kg object is 6 meters up a 30° ramp. If it starts at rest how fast is it going at the bottom if $F_f = 8 \text{ N}$.

- 10. Could the object be alive or not? If yes, which characteristic of life is demonstrated?
 - A. An object found in a dark cave moves away from light.
 - B. An object seems to have hair. When it is placed in light nothing happens; when it is given glucose and several other forms of food, nothing happens.
 - C. After being in a lab for several days an object splits in two. The two resulting objects eventually split again.
 - D. When studied under a microscope an object seems to be made up of individual compartments.
 - E. A object is poked and subjected to intense heat, but does nothing.