

KE/PE Homework #2

$$V = S / T$$

$$S = V \times T$$

$$T = S / V$$

$$KE = \frac{M \times V \times V}{2}$$

1. A mass of 8 kg. moves at a rate of 14.3 m/sec. What is the KE developed by the mass?
2. A mass of .343 kg. moves down a 5 meter ramp in 5.8 seconds. What is the velocity and the KE developed by the moving mass?
3. A mass of .1539 kg. moves down a 5 meter ramp in 2 seconds. What is the velocity and the KE developed by the moving mass?
4. A mass of .076 kg. moves down a .5 meter ramp in 5 seconds. What is the velocity and the KE developed by the moving mass?
5. An experiment similar to ours was completed by a group of 7th grade students. There were 8 times recorded : (7.48, 7.45, 7.90, 7.37, 7.25, 7.40, 7.55, 7.60)

The distance traveled was 30 meters.

- A. What was the average time of all the times recorded?
 - B. What was the average velocity
 - C. If the mass was 432 grams (be careful again with this one) what was the KE developed?
6. What distance is covered by a car with a velocity of 30 m/sec during a time of 45 secs.?
 7. How much time will it take an object to travel 84.9 meters at a velocity of 3 m/sec?