1. Assume a car is accelerating from rest at 2 m/s^2. How fast will it be going after 3 seconds?

2. A car is moving at 20 ft/s and accelerates at 3 ft/s^2 for 5 seconds. How fast will it be going at the end of the 5 seconds?

3. If you are moving at 10 ft/s but accelerating at -1.7 ft/sec^2 how long will it take to come to rest?

FREE FALL – when the force of gravity is the only force considered to be acting

Acceleration of gravity = 9.8 m/s^2 OR   32 ft/s^2

4. A ball falls freely from rest and hits the floor after 2 seconds. How fast was it going just before it hit the floor? Answer in m/s.

5. How fast will a person be going if he falls freely from rest for exactly 1 second? (answer in m/s)

6. How far will a person fall in exactly 1 second?

7. A rock falls off an overpass. It takes 2.8 seconds to hit the ground.

        a.   What is its initial speed?

        b.   What is its final speed?

        c.   What is its average speed?

        d.   How far above the ground was the rock originally?