Study Guide #1 – Velocity and Acceleration Test

Physical Science and Technology

1. A chicken is walking up a hill. If it walks for 5.6 m and it takes 11.6 s to get to the top of the hill, what was its velocity? Use the Five Steps.

2. A turkey is falling out of a plane. If it falls 182.3 m with a velocity of 6.2 m/s, how long does it fall? Use the Five Steps.

3. A duck is running down the street with a velocity of 2.78 m/s. If it runs for 7.67 seconds, how far did it run? Use the Five Steps.

4. Another duck is chasing after the first duck with a velocity of 1.3 m/s. If it accelerates at 4.4 m/s^2 for 4.9 seconds, what will its final velocity be? Use the Five Steps.

5. Joe is running away from the ducks in problems 3 and 4. After 15 seconds of running, his velocity is 57.6 m/s. If he was accelerating at 1.4 m/s^2 while he was running, what was his original velocity? Use the Five Steps.

6. A turducken is battling a stormtrooper for control of the earth. If the turducken accelerates at 11.5 m/s^2 for 11 s, and it starts from rest (it is motionless), what is its final velocity? Use the Five Steps.

7. After defeating the stormtrooper, the turducken runs a victory lap around the equator. If it starts with a velocity of 12.7 m/s, runs for 482.8 seconds, and ends with a velocity of 12.7 m/s, what is its acceleration? Use the Five Steps.