Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Page 55 - Practice Problems D – Velocity and Displacement w/Constant Acceleration – Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A car with an initial speed of 6.5 m/s accelerates at a uniform rate of 0.92 m/s2 for 3.6 s. Find the final speed and the displacement of the car during that time?
2. An automobile with an initial speed of 4.30 m/s accelerates uniformly at the rate of 3.00 m/s2. Find the final speed and the displacement after 5.0 s.
3. A car starts from rest and travels for 5.0 s with constant acceleration of -1.5 m/s2. What is the final velocity of the car? How far does the car travel in this time interval?
4. A driver of a car traveling at 15.0 m/s applies the brakes, causing a uniform accelerate of -2.0 m/s2. How long does it take the car to accelerate to a final speed of 10.0 m/s? How far has the car moved during the braking period?