**MOTION WORKSHEET #2 Name**

1. A car with a velocity of +22m/s is accelerated at a rate of +1.6m/s2 for 6.8 s. What is the final velocity of the car?
2. What is the final velocity of a proton that starts at +2.35x105m/s, and is accelerated at the rate of -1.10x1012m/s2 for a period of 1.50x10-7s?
3. How far does a plane fly in 15.0s if its velocity changes from +145m/s to +70m/s at a constant acceleration? (2)
4. An astronaut on the moon drops a feather from a height of 1.20m above the surface. If the acceleration due to gravity on the moon is 1.62m/s2, how long does it take the feather to reach the surface of the moon?
5. Engineers are developing new types of guns that might someday be used to launch satellites as if they were bullets. One such gun can give a small object a velocity of 3.5km/s moving it through a distance of only 2.0cm. What is the acceleration of this gun in m/s2?
6. A car traveling at 70.0m/s stops in a distance of 50.0m. What is its acceleration?