

Accelerated Motion Problems 2

Name _____

1. An object is moving at 4.66 m/s when it accelerates at 5.66 m/s^2 for a period of 2.35 s. The distance it moves in this time is _____ m.
2. A Star fleet science officer drops a large rock from a height of 1.55 m onto the surface of an alien planet. The rock strikes the ground in 0.230 s. Determine the acceleration of gravity.
3. A NASA space probe is moving towards Jupiter at a speed of 9.50×10^4 m/s. How far does it travel in 24.0 hours?
4. A rock is dropped off the top of a tall building. How far does the rock fall in 2.00 s?
5. Determine the speed of the rock in the previous question at the end of the 2.00 s.
6. A ball is thrown straight down from a tall building at an initial speed of 8.00 m/s. If it hits the ground in 5.00 s, how high is the building?

