

Date:

Kinematics #1

1. A car is initially travelling at 21 m/s . If it travels 615 m in 9.2 s , what is its acceleration?
2. A cyclist is going up a hill and slows down at a rate of -5.8 m/s^2 over 10 m . At the end the cyclist is traveling at 2.3 m/s . What was the speed of the bicycle before it got to the hill?
3. A train starting from rest accelerates for 58 s at a rate of 0.42 m/s^2 .
 - (a) What is the train's final velocity?
 - (b) How far would the train have traveled in that time?