

Name \_\_\_\_\_  
Honors Physics  
Period \_\_\_\_\_

Date \_\_\_\_\_  
Kinematics WS #5H  
Mrs. Nadworny

## Acceleration

**Directions:** Read textbook pages 48 – 58. Solve the following problems using the GUESS method. Show all work clearly.

1. An observer recorded the following data for the motion of a car undergoing constant acceleration.

Time (s)	Speed (m/s)
3.0	4.0
5.0	7.0
6.0	8.5

What was the magnitude of the acceleration of the car?

- A)  $1.3 \text{ m/s}^2$       B)  $1.5 \text{ m/s}^2$       C)  $2.0 \text{ m/s}^2$       D)  $4.5 \text{ m/s}^2$
2. Mark Meiwurdz is buzzing around town on his skateboard at  $6.1 \text{ m/s}$  when he runs into some dirt that slows him down at a rate of  $-0.79 \text{ m/s}^2$ . How long will it take him to come to a complete stop?
3. If Dusty Rhodes' Corvette can go from zero to  $24 \text{ m/s}$  in  $2.15$  seconds, what is its rate of acceleration?
4. A car with an initial velocity of  $16.0$  meter per second east slows uniformly to  $6.0$  meters per second east in  $4.0$  seconds. Calculate the acceleration of the car during this  $4.0$  second interval.