

Name \_\_\_\_\_  
Physical Science  
Period \_\_\_\_\_

Date \_\_\_\_\_  
Acceleration Ws

1. What is the acceleration of a motorcycle that went from 22 m/s to 34 m/s in 2 seconds?
  
  
  
  
  
  
  
  
  
  
2. What was the final velocity of the space shuttle 5 seconds after take off with an acceleration of  $2500 \text{ m/s}^2$ ?
  
  
  
  
  
  
  
  
  
  
3. How long did it take for a stone to hit the bottom of a gorge if it was dropped off a cliff and hit the bottom with a velocity of 147 m/s? (Hint: Its acceleration would be the acceleration due to gravity.)
  
  
  
  
  
  
  
  
  
  
4. A person sees a deer in the road while driving and slams on the brakes creating a deceleration of  $16 \text{ m/s}^2$ . How fast was the vehicle going if they came to a stop in 2.5 seconds?
  
  
  
  
  
  
  
  
  
  
5. A marathon runner traveled 120m in 15 seconds when she increased her rate to 12 m/s in a time of 2 seconds to keep in front of another runner coming up behind her. What was the acceleration of the runner?