

Name: _____

Period: _____

Date: _____

Acceleration Worksheet

Directions: Calculate the acceleration for the following problems. Be sure to label your answer with the appropriate units.

1. Suppose a cheetah running at a velocity of 27 m/s slows down. After 15 seconds the cheetah has stopped. Calculate the average acceleration of the cheetah

2. A plane passes over point A with a velocity of 8,000m/s north. Forty seconds later it passes over point B at a velocity of 10,000m/s north. What is the plane's acceleration from point A to point B?

3. A coconut falls from the top of a tree and reaches a velocity of 19.6m/s when it hits the ground. It takes 2 seconds to reach the ground. What is the coconut's acceleration?

4. At point A, a runner is jogging at 3m/s . Forty seconds later, at point B--on a hill—the jogger's velocity is only 1m/s . What is the jogger's acceleration from point A to point B?

5. In a summer storm, the wind is blowing with a velocity of 8m/s north. Suddenly, in 3 seconds, the wind's velocity is 23m/s north. What is the acceleration in the wind?

6. Suppose you are in-line skating forward at 1.5m/s . Suddenly, another person bumps you, giving you an acceleration of 0.5m/s^2 for 1s. What other information do you need to determine your velocity after the push?