

Science 9
Newton's Worksheet #3
Acceleration

Name: _____

1. A motorcyclist is stuck behind a slow poke 'Sunday driver' who is traveling at 10 m/s. In passing, the motorcycle is able to reach a speed of 20 m/s in 2 seconds. What was the motorcycle's acceleration?

2. A race car driver, on a straight road, increases her speed from 50 m/s to 65 m/s in 10 seconds. What is her acceleration?

3. A plane starts from rest and attains a forward velocity of 53 m/sec in 30 second's time. Find the plane's acceleration.

4. A rock is dropped from a bridge. It's final velocity before it hits the water is 29.40 m/sec. This takes 3.0 seconds to occur. Calculate the rock's acceleration.

5. A bicyclist can accelerate from 0 Km/hr to 10.0 Km/hr in 2.0 seconds. An automobile can accelerate from 80 Km/hr to 90 Km/hr in 2.0 seconds. Which vehicle has the faster acceleration? (Find accelerations for both and compare)