

Name: _____

Class Period: _____

Physics: Kinematics
Extra Credit

1. A cyclist bikes up a mountain (10.0 km) with an average speed of 2.78 m/s. He rests at the top of the mountain for 5.00 minutes, then bikes down the mountain (10.0 km) with an average speed of 5.56 m/s. What is the cyclist's average speed for the entire trip? Express your answer in SI Units.

2. A stone is thrown vertically upward with an initial velocity of 12.0 m/s from the edge of a cliff that is 75.0 m high. The stone flies upward, then falls to the bottom of the cliff.
 - A. Draw a sketch of the situation here. List any given variables.
 - B. How much time does the stone take to reach the bottom of the cliff?
 - C. What is the velocity of the stone just before it reaches the bottom of the cliff?
 - D. What is the total **distance** traveled by the stone?