Name _____ Date _____ Period _____

Practice Quiz: Linear Motion

C O N C E P T U A L P H Y S I C S : U N I T 1

DIRECTIONS: Use the equations below to solve the following problems. You must show all of your work to receive credit. This includes: 1) showing what is given, what you are trying solve for *(1 point)* 2) showing equation *(1 point)* 2) showing your work *(1 point)* 3) answer with correct units *(1 point)*. A total of 4 points/question. **Total points = 20 points**

Average speed $v = \frac{d_1 - d_0}{t_1 - t_0}$ $v = \frac{d}{t}$

Acceleration $a = \frac{v_1 - v_0}{t_1 - t_0}$ $a = \frac{\Delta v}{t}$

1. What is the average speed of a cheetah that runs 480 m in 20 seconds?

2. A bicycle travels 1600m in 120 seconds. What is its average speed?

3. How far would you run if your average speed were 8 m/s for 20 seconds?

4. How long would it take to travel 400 meters at 5 m/s?

5. What is the average acceleration of a car that goes from rest to 10 m/s in 5 seconds?