**Unit 3 – Worksheet 1c**

**Uniform Acceleration**

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| --- | --- |
| *t* |  |
| (s) | (cm/s) |
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1. Using your slope calculations from Worksheet 1b, complete the data table to the right. Using the velocity and time data, plot a graph of velocity vs. time for the wheel rolling down the incline.

Complete the mathematical analysis for this graph in the space below.

**Mathematical Analysis:**

1. According to the velocity vs. time graph, what is happening to the velocity of the wheel as time continues?
2. What is the physical significance of the slope of this graph? (Hint: The rate at which …)
3. In what units is this slope measured?
4. What is the name commonly used to represent this rate?
5. What symbol would you use to represent this rate?
6. Write the general equation (using only variables) that describes the relationship between velocity and time for a wheel rolling down an incline from rest.