

Name: \_\_\_\_\_ Partner: \_\_\_\_\_ PH2223 - \_\_\_\_

Experiment Sheet for **Computer-Assisted Measurement of g****Picket Fence data table**

$\Delta t$ (s)	$t_{in}$ (s)	$t_{mid}$ (s)	$v$ (m/s)

**Sample Calculations ( $t_{mid}$  and  $v$ ):**Attach graph of  $v$  vs.  $t_{mid}$  to the back of these pages.

What did you get for your value of gravity (slope of your graph)? \_\_\_\_\_

The magnitude of gravity (at sea level) is approximately  $9.8 \text{ m/s}^2$ . What is your percent error? \_\_\_\_\_

**Sample Calculations (slope and %error):****Computer's Analysis:**

What did your computer get for the slope of its graph? \_\_\_\_\_

What did your computer get for the R-value? \_\_\_\_\_

**Questions:**

1. What type of graphical relationship do you think the position vs. time graph made?
2. From class what kinematic equation best explains this position vs. time graph?
3. Were you able to get fairly constant acceleration by hand? \_\_\_\_\_
4. You didn't have to get  $9.8 \text{ m/s}^2$  by hand; what did you get? \_\_\_\_\_