

# PHY 123 EXPERIMENT 2 Acceleration - Worksheet

$D \pm \Delta D =$  \_\_\_\_\_  $d \pm \Delta d =$  \_\_\_\_\_

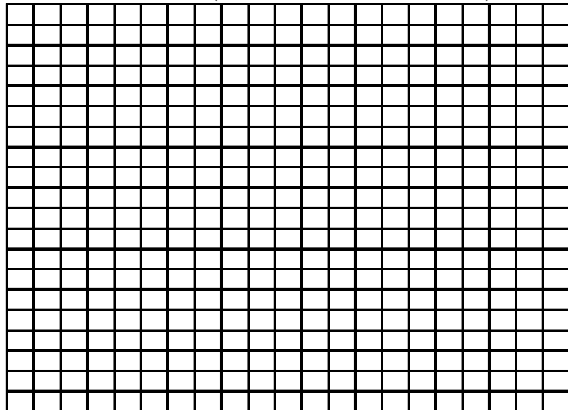
Velocity vs Time data for graph

Measurement #	Time ( $t$ ) [     ]	Velocity ( $v$ ) [     ]	$\Delta v$ [     ]
1			
2			
3			
4			
5			

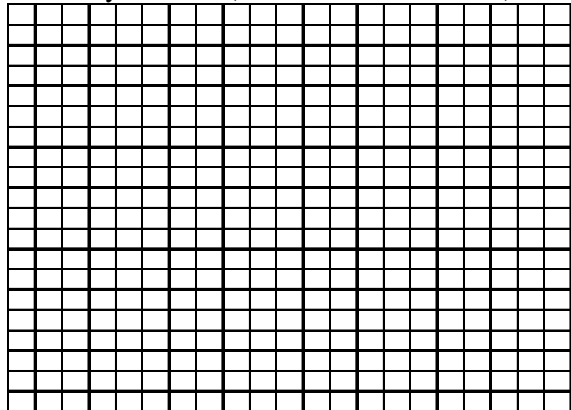
From the graph you made using the above data:  $g_{exp} \pm \Delta g_{exp} =$  \_\_\_\_\_

Is this consistent with the expected value of  $g$ ? \_\_\_\_\_

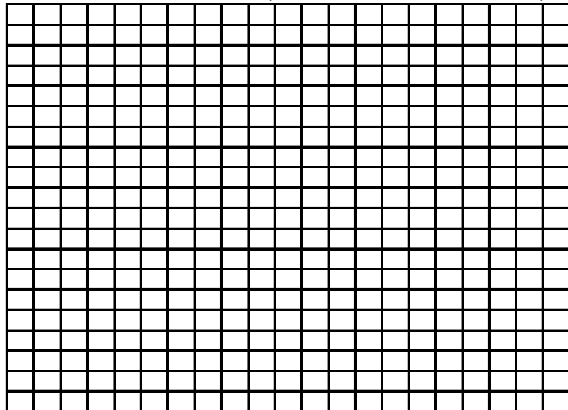
Distance vs time (label all axes and units):



Velocity vs. time (label all axes and units):



Acceleration vs. time (label all axes and units):



**A different approach to getting g and its error**

Measurement # <sub>i</sub>	[      ]
M <sub>1</sub>	
M <sub>2</sub>	
M <sub>3</sub>	
M <sub>4</sub>	
M <sub>5</sub>	

Average of the 5 measurements and their error (show both calculations explicitly and units):

Is this consistent with the accepted value for g? \_\_\_\_\_

Which approach do you think gave you a better value of g? Why? Write something down and then discuss this with your TA!