

name:

group members:

SCIENCE ONE PHYSICS WORKSHEET 1

1a) Draw a motion diagram for the motion demonstrated in class (you can use a particle model if you like):

2 a) For the motion diagram on the blackboard, draw vectors below to indicate the direction of velocity and acceleration at the time labelled by a star.

v

a

b) Determine (as accurately as you can) the magnitude of the velocity and acceleration at this time.

c) Can you estimate how accurate your velocity is (i.e. in what range of values would you be confident that the actual velocity is)?

d) Is the acceleration constant? If not, is it increasing or decreasing?
Would you expect it to be constant? Why or why not?

3) Qualitatively sketch position, velocity, and acceleration vs time graphs below. You don't need to plot actual data points.

