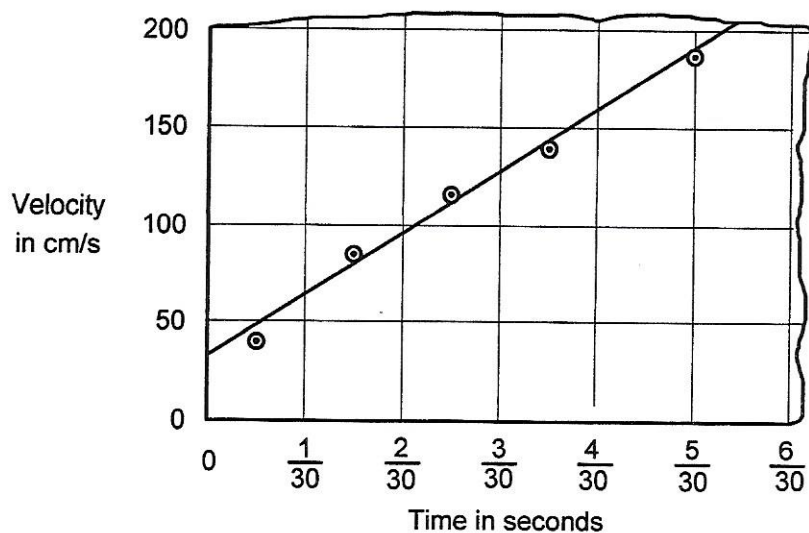


17. Plot data points for a graph of velocity versus time, using the values of  $v$  and  $t$  from the Data Table and using the graph paper provided at the end of this section. Use coordinates and plot data points as shown in the example below. For instance, suppose that the Data Table shows the average velocity to be 40 cm/s in the first interval from  $t = 0$  to  $t = 1/30$  s. The instantaneous velocity at the midpoint of the time interval is assumed to be equal to this average velocity. Therefore, the data point should be midway between the vertical grid line corresponding to  $t = 0$  and the vertical grid line corresponding to  $t = 1/30$  sec. The height of the data point should correspond to 40 cm/s on the scale at the left. (Of course, the velocity values for your own data points will differ somewhat from those in this example.) Draw a small circle around each data point.



18. Draw a straight line that passes as close as possible to these data points. (If these points are not nearly in a straight line, check your work for mistakes.)
19. Check your graph to see that it is complete. This graph (and all future graphs) should have the following items present:
- A descriptive title.
  - The grid of horizontal and vertical lines.
  - Numbers along the horizontal axis and along the vertical axis.
  - The name of the quantity and units along each axis.
  - The data points with small circles around them.
  - The curve (or possibly a straight line) passing through or close to most of the data points.