Imagine we have taken position-time data for a running rabbit.


|  | A | B |
| :---: | :---: | :---: |
|  | time $(\mathrm{s})$ | position <br> $(\mathrm{m})$ |
| $\mathbf{1}$ | 0.0 | -5.0 |
| $\mathbf{2}$ | 1.0 | -4.0 |
| $\mathbf{3}$ | 2.0 | -2.3 |
| $\mathbf{4}$ | 3.0 | 0.0 |
| $\mathbf{5}$ | 4.0 | 2.0 |
| $\mathbf{6}$ | 5.0 | 3.0 |

Copy these data into Excel and graph them as an XY scatter plot of position vs. time. What is the average velocity for the whole 5.0 s interval? Fit a trendline to the data. Compare the average velocity to the slope of the line. Is there a functional form that fits the data better than a straight line? In a new table find the average velocities for each one second interval. How many intervals are there? Graph these average velocities versus time. What value of time should you choose for each average velocity?

