Rates of Change

**4.** Go to a financial website (for exmaple, [finance.google.com](http://finance.google.com/)), pick your favorite stock. By denote the price at which the stock was exchanged at time where is measured in seconds from last Friday midday. What does mean? What does mean? Estimate the average rate of change of the stock for the following time intervals

Based on your calculations do you think the instantaneous rate of change of the price exist? Can you briefly describe in words the behavior of near .

**5.** An object is moving along the straight line as follows. It starts at and then it moves to the right to . Then the objects moves to the left to , and finally to the right to stop at . Sketch a possible graph of the position function . Sketch a possible graph of the velocity (the instantaneous rate of change of ).