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## From Chapter 3:

1. **Problem *du jour*:** This is the first of a series of problems generated randomly using the Dow Jones and NASDAQ Averages. These numbers are printed in most newspapers five days a week. The figures are used to set values for four constants, A,B,C, and D, which are then used in problems. Here's how you find these numbers:

### Getting Dow Jones A,B,C,D:

First, find the most recent closing value of the Dow Jones Average. (Example: the closing value for May 10, 2001, as reported in newspapers on May 11, 2001 was 10,910.44.) The values of A,B,C,D are the last four digits. (In the example of May 10, the Dow Jones numbers would be: A is 1, B is 0, C is 4, and D is 4.)

### Getting NASDAQ A,B,C,D:

The procedure is the same as for Dow Jones. (Example: the closing value for NASDAQ for May 10, 2001 was 2,128.86, so the NASDAQ numbers would be: A= 2, B= 8, C= 8, and D= 6.)

Now here's the problem: Using the Dow Jones constants, approximate  $f'(t)$  where  $f(t) = At^2 + Bt$  for  $t = C$  using  $\Delta t = \frac{D+1}{10}$ . (Example: using the May 10 figures, this problem is: Approximate  $f'(t)$  where  $f(t) = t^2$  for  $t = 4$  using  $\Delta t = .5$ .)