

## QUIZ 9

Name \_\_\_\_\_

1. Find the quadratic, cubic, or quartic model that best fits the data in the table below.

New York Stock Exchange  
Shares Traded

Years Since 1980	Shares (millions)
0	11,562
2	16,669
4	23,309
6	36,009
8	41,118
10	39,946
12	51,826
14	74,003
16	105,477
18	171,188
20	265,499

According to your model how many shares will be traded in the year 2005? Does this number seem reasonable? Why?

2. Candy bars currently cost \$0.60 each. The price of a candy bar is expected to increase by 3% per year in the future. Write a model that describes the price of a candy bar  $x$  years in the future.

3. Find the  $y$ -intercept and the vertex of  $y = -2x^2 + 20x - 31$