

How do I make a million?...

Dollars that is!

A. Teaching Objectives:

To teach that the Stock Market Game may be used to obtain specific data on publicly traded stocks.

1. The data may be used to perform a variety of mathematical calculations.
2. The data may be used to develop mathematical matrices.
3. The data may be used to develop appropriate graphs and charts.
4. The data may be used to develop appropriate software spreadsheets.
5. The data may be used to develop ratios (such as P/E ratios), averages and percentages.

B. Economic concepts/vocabulary:

Stock Market, producers, ticker symbols, rate of return, marginal thinking, interest rates, unemployment rates and price/earnings ratios.

C. Background/Virginia SOL correlation:

In addition to the Economic Content Standards that the SMG encompasses, this lesson will meet the following Virginia Algebra I standards... A1, A2, A4, A5, A6, A7, A8, A16, A17, A18, A20

D. Procedure:

Supply students with a list of the stocks that were traded during their most recent participation in the Stock Market Game. The use of these stocks should generate interest from the students as they have developed “ownership” of these stocks. Many of these stocks should also be relevant to the age of your students as they were actually selected by these same students.

The following are guidelines for the types of question that can be asked of your mathematically minded students. The actual reporting can be done in any matter chosen by you as the teacher. A “portfolio format” is suggested however, to include all relevant graphs, spreadsheets, charts, and short answers. Have students develop individual or group portfolios.

E. Questions:

1. Pick a favorite company. _____
2. Enter the ticker symbol. _____
3. Enter today's date. _____
4. Enter targeted Rate of Return (ROR) _____
5. Compute the price change needed to reach the target rate. _____
6. Develop a matrix based on current (base) price, broker fees and marginal (incremental) price appreciation.
7. Following the stock over a specified time period (teacher determined) use the above matrix to determine whether to hold the stock or sell at various price levels.
8. Compare the historical data of the chosen stock over a given 10-20 year period.
This may be done by hand or by using appropriate computer software (preferable).
9. Compare the stock price graphically and in chart format with interest rates over the same time period.
10. Compare the stock price graphically and in chart format with unemployment rates over the same time period.
11. Choosing a much shorter time period (5 years?), compare the chosen stock graphically to...
 - a. The performance of the Dow Jones Industrial Average (over the same time period)
 - b. The performance of at least one other stock in the same industry over the same time period.

- c. The performance of classmates chosen stocks over the same time period.

It will be much more beneficial for the students in this exercise to establish percentages gained/lost for each stock, then graphically compare those percentages.

12. Have students as a group compare chosen stock price changes on a given day to the volume of trading on the chosen stock on that day. Develop a matrix comparing individual stock price and individual volume of trade. Expand the comparison matrix by grouping class choices into same-industry categories, and then by average price/average volume of trade. Calculate measurements of central tendency for each industry.

F. Closure:

A two-week research and development schedule is recommended, to be followed by appropriate class time for presentation by individuals or groups of students.