Stock Market

A lesson on using spread sheets and figuring out percent change

People save money in different ways. Some people put the money that they don't need for every day life in a savings bank. Some people buy property and hope that its value will increase by the time that they need to use their money. And some people invest in stocks and bonds.

Lets take a look at how various stocks change over time.

British Petroleum has been in the news a lot lately. The company is under scrutiny from the government, the media, and the citizens of both the United States and England. They have been spending large amounts of money to stop the oil from gushing into the Gulf of Mexico, to clean up the oil that has already spilled in the Gulf, to pay people's claims of damage and loss, and have even bought prime time advertising to reassure Americans of their concern and effort. Needless to say, the company's value has decreased.

Let's look at their stock more closely.

This is a site that will allow me to find the price of their stock on any historical date.
http://bigcharts.marketwatch.com/historical/
I'm curious about how their stock has changed since the oil spill accident. I'm going to make a spreadsheet of their stock values.

Stock name	6/26/2009	9/21/2009	1/20/2010	4/20/2010 Day of the oil rig explosion	5/20/2010	6/27/2010
BP PLC	$ 47.24	$ 54.41	$61.06	$ 60.48	$ 44.58	$ 27.67

I chose to make my records span an entire year. I haven't bothered to make the intervals that I researched equal.

Now how do you figure the percent change in the value of the stock?
I'll figure it two ways.

a. Between my highest recorded value and my lowest recorded value
b. From the beginning date of my recordings to the date that is one year later.

Percent change is

$$= \frac{difference\ between\ values}{original\ value} * 100\%$$

a. $\frac{61.06 - 27.67}{61.06} \bullet 100\% =$ about 55%

Since the value of BP and fallen, I'll say that the percent change from its highest researched value is - 55%.

b. From the first recording to a year later the change is;

$$\frac{47.24 - 27.67}{47.24} \bullet 100\% = \text{ about } -41\%$$

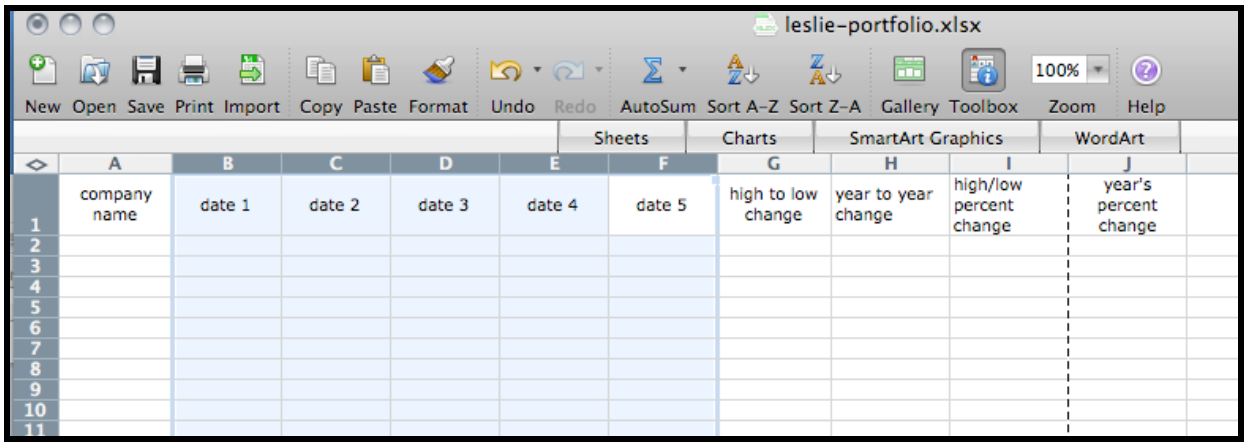
Now lets talk about creating a spreadsheet for our data and asking the computer to do the math. I'll do the work for BP but you will be choosing three companies that you wish to follow and analyze for yourselves.

1. Open an Excel document and save it as "your-name-portfolio". Use your own name and use no capitals or spaces. Excel will add .xls to the end of your title to identify this file as an Excel file.

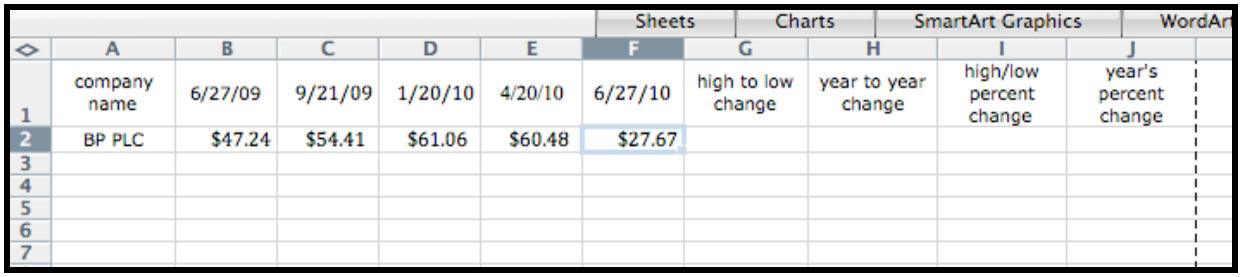
2. Insert a header in your worksheet
    a. Under the View menu, choose Header and Footer
    b. Under Header choose Customize Header
    c. We want your header centered, so use the center section to type the name of this worksheet = "your name Portfolio".
    d. Using the  button, choose your favorite font for your header and make it bold and at least 16pts big.

3. Our chart will have 10 columns. These will be our headings;
    a. Stock abbreviation for the company
    b. 5 actual dates of values
    c. difference between highest value and lowest value
    d. difference between first value and the one-year-later value
    e. high/low percent change
    f. year's percent change

4. Make the chart fit on one page
    a. I like to see the row numbers and heading letters when I work with a spreadsheet. So, in Excel, that means that we will want the "Normal" view. So, under the view menu choose Normal.
    b. A handy tool to have out for the work is the Formatting Palette. Again, under the View menu, choose Formatting Palette.
    c. I'd like my chart to be in landscape mode so that it will fit on one page. One way to put the chart in landscape mode is to choose Page setup on the Formatting Palette and choose Landscape mode.
    d. I can now see that my columns go beyond the page. I can tell by that vertical dotted line between columns I and J.



So, I'll highlight columns B through F and (using my cursor on the line between the columns) make them a little closer together. I'll know that their column width is good when my chart fits within the dotted page lines.



I've chosen to wrap my text in the cells. That means that my long heading "company name" will continue on the next line. That option is in the Alignment and Spacing section of the Formatting Palette.

I've also entered my data and dates now.

5. Now let's make the computer do the work.
   a. In column G and line 2, I'm going to insert a formula. This isn't too hard. When I type an = sign, the computer knows that it is about to learn how to calculate this value. So, I type = , then I click on the most recent high or low value of my data (and the formula inserts F2), type a minus sign, and then click on earlier value of my high or low data, D2. When I hit return, the computer calculates the value and enters it into the cell where the formula was. My value was negative so I had to make sure that my Number format allowed me to see the negative sign. Pretty cool.

   Now each of my companies is going to have high and low values in different columns, so I'm not going to copy this same formula into the next 3 cells.
   b. Type the appropriate formula for column H2.
   c. For column I, use the information that we learned earlier about percent change. Column I will have the formula = G2/D2
   d. For all of your companies, column H will have the same formula. So, after you have entered the formula once in cell H2, just copy and paste the formula in H3, H4, and H5.

6. Complete your chart. You will have to highlight cells and choose number formats from the Formatting Palette. Center and align your work. Make sure that negatives show.

7. Save it. In the formatting pallet under Page Setup, choose to Print the gridlines and print.

Leslie's Portfolio

company name	6/27/09	9/21/09	1/20/10	4/20/10	6/27/10	high to low change	year to year change	high/low percent change	year's percent change
BP PLC	$47.24	$54.41	$61.06	$60.48	$27.67	-$33.39	-$19.57	-54.68%	-32.05%

** Now your investments ***

1. Choose 3 companies that you would like to invest in.

2. Do an historical analysis on the value changes of your stock for the last year.

3. Add your three new companies to the BP spread sheet.

4. Fix all of your fonts and alignments and print a beautiful, one page sheet of your portfolio.

5. What do you predict the value of BP's stock will become
   a. in the next 3 months?

   b. in the next year?

   c. in the next five years?

This activity was a revision written by Leslie from an activity created by Matt Timmins.