

You will need your homework from the previous class for this activity.

As discussed in your homework, the prices of tiles are constantly changing and you have over 100 designs. Using algebraic expressions is helpful to generalize the rules for each calculation, but the actual calculations are still tedious to do by hand. Therefore, you use a spreadsheet to keep track of your costs.

A **spreadsheet** is a computer application that simulates a paper worksheet. It displays multiple cells that together make up a grid consisting of rows and columns, each cell containing either alphanumeric text or numeric values. A spreadsheet cell may alternatively contain a formula that defines how the contents of that cell is to be calculated from the contents of any other cell (or combination of cells) each time any cell is updated. Spreadsheets are frequently used for financial information because of their ability to re-calculate the entire sheet automatically after a change to a single cell is made. Excel is one example of a spreadsheet software program and will be used in this course.

Open the Excel document, *Exploring Spreadsheets*.

The total cost of each repeated design is based upon the prices listed in the upper left corner of the worksheet.

1. Record the prices and Cost of Unit from the spreadsheet:

Exploring Spreadsheets

Price per tile (\$):	Name of design	Expression (Unit)	Cost of Unit
Rhombus _{blue} :	Sunrise Border	$2R_b+2Z+H$	\$1.70
Hexagon:	Butterfly Border		
Rhombus _{white} :	Daisy		
Triangle:	Your design		
Trapezoid:			
Square:			

2. On the spreadsheet, change the price of blue tiles to \$.30. What is the cost of the unit now?

Click on the cell F3. Notice that the formula bar above the worksheet reads, “=2*B3+2*B7+B4”. The “=” tells the program that it should calculate the values entered instead of displaying them in the cell. Compare this to the cell E3. When you click on this cell the formula bar reads, “ $2R_b+2Z+H$ ” which is what is displayed in the cell itself.

Consider the formula “=2*B3+2*B7+B4” from F3.

3. What does the “*” mean?
4. What does “B3” mean?
5. Which part of the Excel formula represents Z, the cost of trapezoid tiles?
6. Change the prices in the spreadsheet for the blue, red and yellow tiles to be the same as those given in the last row of the table from #1 of your homework.
7. Complete the spreadsheet by entering the expressions and the formula for the Cost of Unit for the other two designs and for your design from your homework.
8. Record what appears in the cell and what appears in the formula bar when the cell is selected below.

Name of Design	Expression		Cost of Unit	
	Cell	Formula Bar	Cell	Formula Bar
Butterfly Border				
Daisy				
Your Design				