Using Google Sheets to Calculate Grades

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Here are steps to see the effect of individual assignments on your overall grade using Google Sheets.

1. Create a new Google Sheet at the following URL:
   https://docs.google.com/spreadsheet/ccc?new&usp=apps_start&hl=en

2. Once you've opened your new spreadsheet, **list your grades in the first column and their percentages in the second column**. You may optionally label your columns as well. See the example below:

Table 1: My Google Sheet

	A	B	C	D
1	Homework	95.6%	20%	
2	Classwork	91.5%	20%	
3	Tests	88.4%	40%	
4	Final	0%	0%	← For why, see below
5				

3. In this example:

   (a) Column A is the name of each category.

   (b) Column B is my current score. (0% for Final since I haven't taken the final yet)

   (c) Column C is how much the category is worth. **If you haven't taken your final yet, leave your Final category worth 0%.**

4. Now that we have all of the data, go to Column D, Row 1 and type in "=B1*C1", without the quotes. When you are finished typing, click out of the cell and your spreadsheet will transform into this:

Table 2: My Google Sheet (With column D)

	A	B	C	D	E
1	Homework	95.6%	20%	**19.12%**	
2	Classwork	91.5%	20%		
3	Tests	88.4%	40%		
4	Final	0%	0%		
5					

5. What did we just do? When you type something that begins with an equal sign = into a spreadsheet, it is interpreted as a **formula**. In this case, we wanted the product of cells $B1$ and $C1$. Now, copy cell $D1$ and paste it into cells $D2, D3, D4$. Notice that cells $D2, D3, D4$ don't say 19.12%. Here is what it should look like now:

Table 3: My Google Sheet (Multiplied)

	A	B	C	D	E
1	Homework	95.6%	20%	19.12%	
2	Classwork	91.5%	20%	**18.3%**	
3	Tests	88.4%	40%	**35.36%**	
4	Final	0%	0%	**0%**	
5					

6. Now that you are comfortable with basic arithmetic formulas, let's try something harder. Underneath all of the percents that you put in column C, type in "=SUM(C1:C4)", without the quotes. In the example, I would type this in column $C6$. Here's what your spreadsheet should look like now:

Table 4: My Google Sheet (Sum)

	A	B	C	D	E
1	Homework	95.6%	20%	19.12%	
2	Classwork	91.5%	20%	18.3%	
3	Tests	88.4%	40%	35.36%	
4	Final	0%	0%	0%	
5					
6			**80%**		
7					

7. When I write $C1 : C4$, it means everything from cell $C1$ to cell $C4$, which in this case, are the percents that I typed in before. If you have more categories than I do, you may have to use $C1 : C5$ or $C1 : C6$ or whatever range you need to.

8. Notice how cell $C6$ now says 80%. This tells me that I have completed 80% of the categories that make up my grade. The remaining 20% comes from the final, which I didn't take yet. This is why we put 0% in cell $C4$ earlier.

9. Now for one last equation. Underneath all the values in your column D, type in "=SUM(D1:D4)/C6". Your spreadsheet should now look like this:

Table 5: My Google Sheet (Final grade)

	A	B	C	D	E
1	Homework	95.6%	20%	19.12%	
2	Classwork	91.5%	20%	18.3%	
3	Tests	88.4%	40%	35.36%	
4	Final	0%	0%	0%	
5					
6			80%	**90.975%**	
7					

10. This is your current overall grade. Now, by changing your current category grades in column B, you can see the effect on your overall grade in cell $D6$. Congratulations! You're programming with spreadsheets!