

**LESSON 4 Monday 2/3 due 2/10**

Hi everyone. The winner of the Flippity Love award goes to Jenny with her sample at <http://tinyurl.com/psvffpy> and her comment that *"I loved Flippity! I am going to demo it in a best practice session next week."*

This week, we are going to start a series of assignment tasks that involve online teams. After much research, I have matched you up with the nicest person(s) in our group. The team and colors are below.

NAMES	URLs for the SURVEY	STATE and JOB	PARTNER
Amanda	<a href="http://tinyurl.com/msabrahamsmultiplicationtest">http://tinyurl.com/msabrahamsmultiplicationtest</a>	TX G4	Sandy
Carrie	<a href="http://tinyurl.com/ppe5dfb">http://tinyurl.com/ppe5dfb</a>	FL Kindergarten	Joanna
Dick	<a href="http://tinyurl.com/formfordick">http://tinyurl.com/formfordick</a>	MA US Math/Tech	Rachel and Jenny
Jenny		NJ US/MS Tech	Dick and Rachel
Joanna	<a href="http://tinyurl.com/joanna34">http://tinyurl.com/joanna34</a>	NY G1	Carrie
Rachel	<a href="http://tinyurl.com/rachel67">http://tinyurl.com/rachel67</a>	LA Tech	Dick and Jenny
Sandy	<a href="http://tinyurl.com/flatstanley1">http://tinyurl.com/flatstanley1</a>	LA G2	Amanda

**HW 4.1** We begin with the first assignment that you complete the SURVEY of your team partners and send an email note to your partner(s) saying what you liked or found intriguing about the survey. No need to cc me. This will allow your partner(s) to get some data into the SS and will allow you to see the work of your partner(s) in this course and begin a relationship that will continue for the rest of the course.

**HW 8.1** Please start contemplating a new GD Presentation or Google Site on "A Tale of Two/ThreeSchools" in which you and partner(s) compare and contrast the way your two/three schools are working through the stages of GD and what some of the hassles and issues are. This will involve email exchange and phone/skype/google hangout conversations. This assignment is not due until week 8 on 3/3 which is why I am calling it **HW 8.1**. There will be more on the specs for this each week.

Just in case any of you still need help on how to make a TINYURL, here again is the 11 minute optional video -- <http://youtu.be/jY1ef22RaOA>

Next, I share with you a GD list reviewing dozens of specific things you have learned in this course, each one with an ID number. The spreadsheet is called GD Review SS and you can find it at the <http://TINYURL.COM/GDREVIEW33>

Here are the questions from 1 to 20 and a 22 minute [optional video](http://youtu.be/WJ_NcWNFOa0) at [http://youtu.be/WJ\\_NcWNFOa0](http://youtu.be/WJ_NcWNFOa0) that goes through these 20 questions in order giving you answers with examples and visuals. You can fast forward or go back to any question since they are in order! Your name is in a column in the right that allows you to say you "got it" or "need help." This is NOT a required video but simply a resource to get help on any of these 20 questions.

HW 4.2 Here is what is required. Go to the SS at <http://TINYURL.COM/GDREVIEW33> and pull down the triangle for each of the 20 questions that constitute a "self-check" on do you know that skill. You can watch the optional video at [http://youtu.be/WJ\\_NcWNFOa0](http://youtu.be/WJ_NcWNFOa0) if you need help. You can also ponder how I did the pull down triangles in this spreadsheet which you will formally learn later in the course.

- 1 Name each of the modules of GD and state one interesting unique feature about each one?
- 2 What are the steps for sharing a file in GD? What are 3 different privilege levels you can give each user?
- 3 How can you share a GD file with a large number of users using a GROUP of EMAILS?
- 4 What are the steps to making a GD file to be public to anyone with the link and how does TINYURL.COM work to help us with this? What is the disadvantage of using this approach?
- 5 What does it mean to "object oriented" vs "bit-mapped" in terms of drawing? Which one is GD Drawing?
- 6 What is the formula in a GD spreadsheet to add up the cells in a range such as D2 to D9?
- 7 What is the rationale for requiring all your students in a class to use a standard file saving name?
- 8 What is the feature called under the TOOLS menu that lets you instantly look up information or pictures on the web to pull into a GD file?
- 9 How do you change the citation style in GD from MLA to APA to Chicago?
- 10 How do you convert a Microsoft Word file into a GD file?
- 11 How do you convert a GD file into a Microsoft file?
- 12 Demonstrate how to insert 1 picture and 1 quote into a GD using the RESEARCH TOOL creating 2 footnotes and using a certain citation style (MLA, APA, Chicago).
- 13 Explain how to use GD to find pictures that are copyright free.
- 14 What is the preferred technique of sharing a large group of files with several

contacts?

15 How many owners can a document have? Is it possible to make someone else the owner?

16 Demonstrate how to use the "magic spot fill down technique" and explain why some times we highlight one cell and other times we highlight two cells?

17 How do you make numbers look like currency?

18 What formula do we use to calculate percent increase? For example if you have a number in cell E3 and you want to type into E4 a formula to calculate 9% increase, what exactly would you type?

19 What are the names for the two ways text in a WP document can interact with a graphic, e.g. the graphic is called \_\_\_\_\_ or \_\_\_\_\_. Demonstrate an example of each in a GD WP document.

20 How do we create separate worksheets in one GD spreadsheet? How do you name or rename each one?

## And now for our next topic:

### The \$ Symbol

Let us go back to Google Docs spreadsheet and learn about **the \$ symbol** in the context of the bank interest program. Let us say that my boss wants to contemplate ANY percentage and we don't want all of those columns that you made last week. Can we have just one column and change the percentage in one cell from 1.04 to 1.05 to 1.12 and so on?

Yes, we can and I will teach you how to do so in this required 8 minute video called Lesson 4 Dollar Symbol GD course -- <http://youtu.be/nuGMrX0yddM>

To reinforce the video lesson, please look at this formula that contains the mysterious \$ symbol known and understood by a small percentage of people!



	A	B	C
1		Percent Increase	1.08
2			
3	2000	\$100.00	
4	2001	=B3*\$C\$1	
5	2002	\$116.64	
6	2003	\$125.97	
7	2004	\$136.05	
8	2005	\$146.93	
9	2006	\$158.69	

The formula in B4 looks like `=B3*C1` but instead it is `=B3*$C$1` and as you will hear in the video, the \$ symbols wrapped around the letter C are declaring that the cell C1 is a CONSTANT not to be changed when you fill down with the magic spot. For over 20 years, I have used the bad joke that "Bill Gates declared nothing to be more sacred than money and that is why he chose the \$ symbol."



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Here is what most people would do in setting up this problem

	A	B	C
1		Percent Increase	1.08
2			
3	2000	\$100.00	
4	2001	=B3*C1	
5	2002	\$0.00	
6	2003	\$0.00	
7	2004	\$0.00	
8	2005	\$0.00	

and even though you get the right answer for B4, you mess up everything below when you fill down.

Finally, I want to point out that you can get away with

	A	B	C
1		Percent Increase	1.08
2			
3	2000	\$100.00	
4	2001	=B3*C\$1	
5	2002	\$116.64	
6	2003	\$125.97	
7	2004	\$136.05	
8	2005	\$146.93	

since the \$ symbol affects what it is in front of (in this case the "1"). However, until you have done 10 or 20 examples, you are better off using the \$ symbol before and after the letter. The formula `=B3*C$1` technically means that column "C" can be altered when you fill right but that row "1" is to be considered sacred when you fill down. Since in this example, we just fill down, this formula works with just one dollar symbol.

By the way, when you use a command such as `=B3*C3` that is called "relative reference" since when you fill down or fill right, the variables are changed relative to where you started. In contrast, in using `=B3*$C$3`, we would call C3 and absolute reference since all formulas based on this one would remain referencing C3.



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Here is the finished product as you will see on the video

	A	B	C	D	E	F	G
1		Percent Increase	1.08			The formula in B4 looks like =B3*\$C\$1	
2							
3	2000	\$100.00		2021	\$503.38		
4	2001	\$108.00		2022	\$543.65		
5	2002	\$116.64		2023	\$587.15		
6	2003	\$125.97		2024	\$634.12		
7	2004	\$136.05		2025	\$684.85		
8	2005	\$146.93		2026	\$739.64		
9	2006	\$158.69		2027	\$798.81		
10	2007	\$171.38		2028	\$862.71		
11	2008	\$185.09		2029	\$931.73		
12	2009	\$199.90		2030	\$1,006.27		
13	2010	\$215.89		2031	\$1,086.77		
14	2011	\$233.16		2032	\$1,173.71		
15	2012	\$251.82		2033	\$1,267.60		
16	2013	\$271.96		2034	\$1,369.01		
17	2014	\$293.72		2035	\$1,478.53		
18	2015	\$317.22		2036	\$1,596.82		
19	2016	\$342.59		2037	\$1,724.56		
20	2017	\$370.00		2038	\$1,862.53		
21	2018	\$399.60		2039	\$2,011.53		
22	2019	\$431.57		2040	\$2,172.45		
23	2020	\$466.10		2041	\$2,346.25		

The rule of 72 says that to double money in the bank, you multiply the # years times the percentage and that equals 72 (approximately).

Hope you understand that this example is a complicated one.

### Next command: The IF command

This lets you decide if something is true, whether numbers or words.

In the homework, you will see two required spreadsheet problems that require the use of the \$ symbol to solve and several optional challenges

### HW 4.3 Required

Larry, Kevin, and Robert are 3 basketball players who make \$33,000, \$44,000 and \$32,000 respectively. The owner of the Boston Celtics wants to give them a percentage increase (the same for all 3) but has not decided what percent yet. So you need to create a GD spreadsheet that lets the owner type in 1.03 or 1.04 or 1.05 into one special cell and the computer then shows their salaries. Please do this as a new GD spreadsheet and put it into your folder called HW to Steve from ??? once done. This same GD spreadsheet will have one TAB for HW 4.3 and one TAB for HW 4.4.

Next, let us learn to use the IF statement in this 3 minute video titled Lesson 4 IF Command GD course -- <http://youtu.be/9IUxNCJ4VxM>



Note that the IF formula has 3 things inside the parentheses separated by two commas. These 3 things are called "parameters." The first parameter is something that is either true or false. If the first parameter is true, then the second parameter is inserted into the cell. Otherwise the third parameter is inserted. That is why you see "correct" or "wrong" in the cells below in column C for the first example.

Fraction Survey Quiz (Responses) ☆					Steve Ber
File Edit View Insert Format Data Tools Form Help All changes saved in Drive					Comments
<div> <span>Print</span> <span>Undo</span> <span>Redo</span> <span>Find</span> <span>\$ % 123</span> <span>Arial</span> <span>10</span> <span>B</span> <span>I</span> <span>U</span> <span>A</span> <span>Fill Color</span> <span>Background Color</span> <span>Text Color</span> <span>Align</span> <span>Indent</span> <span>More</span> </div>					
	A	B	C	D	E
1	What is your first name?	Which one of these items is the biggest number?		The key formula in C2 is <code>=IF(B2="3/8","correct","wrong")</code>	
2	Jane	3/8	correct		
3	John Doe	1/3	wrong		
4	Larry Bird	3/10	wrong		
5	Mary	3/8	correct		
6					
7					
8	What is your first name?	What is Steve Bergen's favorite number			
9	Jane	31	sorry, not correct	The key formula in C9 is <code>=IF(B9=33,"good job","sorry, not correct")</code>	
10	John Doe	32	sorry, not correct		
11	Larry Bird	33	good job		
12	Mary	34	sorry, not correct		
13					
14					

Whenever you have numbers (called "numeric data") you do not need quotes.

`=IF(B9=33,`

However, when you deal with words and even 3/8 is called a word since there is no equals in front of it, then you need quotes. We call these "alphanumeric data."

`,"sorry, not correct"` or `=IF(B2="3/8",`

Here is a HW assignment problem with the IF statement that requires you to use both the IF formula and the \$ symbol.

#### HW 4.4 Required

Alice, Barbara and Carol earned scores of 58, 78 and 88, respectively on a test. Use an IF statement in a column next to their score to indicate who passed or not by having the word "PASS" or "FAIL" appear automatically. Let us call 65% passing. Then add a column for curving their score using the \$ symbol to reference a number which will increase the grade equally for all 3 of them by whatever percentage is specified in a certain designated cell.



Please do all these homework assignments on 1 spreadsheet called  
Lesson 4 Spreadsheet Problems Jane Doe

Each problem you do should be on a different worksheet TAB on the bottom. You can put this file into the folder previously called HW TO STEVE FROM ??? but you should send me an email so I can check your work and give you some feedback.

**HW 4.5 Optional Challenge** (if you do this, put it into a new TAB on the same SS)  
Create a 2 column spreadsheet with the odd numbers from 1 to 21 in the first column. In the second column show the partial sums so next to 3 will be  $1+3$  and next 9 will be  $1+3+5+7$ . You should do this by using a formula in the cell next to 3 that contains a \$ symbol usage and then fill down with the magic trick.

**HW 4.6 Optional Challenge** (if you do this, put it into a new TAB on the same SS)  
Create a three column spreadsheet with the temperatures for 20 consecutive possible Celsius temperatures, e.g. 1 to 20 degrees or 41 to 60 degrees or -31 to -10 degrees in column one. The user should be allowed to choose the low number and your 20 temperatures should be based on that one via formula with the \$ symbol. Then in column two, use a formula that changes Celsius to Fahrenheit such as  $F=(9/5)*C+32$  or  $F=2.2*C+32$  to compute all the equivalent temperatures. Then in column three, use an IF formula to see if the Celsius and Fahrenheit are the same, saying "same" or "different" in each cell.



## And now for our next topic:

Finally, our lesson 4 will involve getting started (first base before second base) with Google Sites. The video below gives you all the details and instructions. Please note that you are being to simply create a SITE with a specified name and type. Once you do so, you send me the URL and I will test it. In the second half of our course, I will be encouraging you to implement something from this course involving students and one or two of you may choose to have a classroom website with each student owning a page as your teacher activity of choice.

Here are some key things to complement the video and to reinforce certain points. Each item marked SPEC is an important specification for you to make sure you do right! In my first few years of being a computer teacher in the 1980s, I had a hard time grading and evaluating computer projects. Then an Art teacher colleague told me about putting SPECS into projects and alerting the students loud and clear that these were some of the items by which they would be evaluated. This was before grading rubrics became popular. Once I started doing that, it was much easier to give students feedback, evaluation and grades on their projects since I had my checklist of SPECS and they would know which ones they did well and which ones they did not complete properly.

You will be dealing with a CAPTCHA that looks like this:

Type the code shown:



It is fun to learn this word which is an acronym for **C**ompletely **A**utomated **P**ublic **T**uring test to tell **C**omputers and **H**umans **A**part, a trademark of Carnegie Mellon University. A CAPTCHA is a type of challenge-response test (named after a computer scientist named Alan Turing) used to determine whether or not the user is human. The term was coined in 2000 (info from <http://en.wikipedia.org/wiki/Captcha>).

Here is the 12 minute video to watch before or after the reading (your choice).

<http://youtu.be/62NAtdAr8xw>

**HW 4.7 Required****Create a Google Site according to the specs and details below.**

SPEC: You must use a site name such as 33SteveB33 using a number, your first name, the first initial of your last name and then the same number. You do the typing in this top box and the lower box with your URL is filled in by the computer. Take note of the URL however in the lower box because that is how you tell me you have done this homework!

Name your site:

Site location - URLs can only use the following characters: A-Z,a-z,0-9

SPEC: You must choose this grouping -- Schools & Education -- for Site Templates and then you must choose the category of E-Portfolio template for this assignment.

Select a Site Template

Public

Featured

Business collaboration

Activities &amp; events

**Schools & education**

Clubs &amp; organizations

Personal &amp; family

**Classroom site**Pull all your class information tog  
Stay connected with pa...**E-Portfolio Template**

E-Portfolio Template

In a subsequent week, we will create a BLANK Google Site and you will see the difference. But for now, you must choose this one.



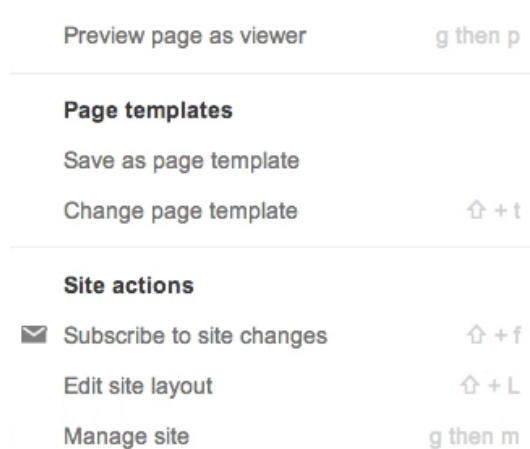
## E-Portfolio Template

By nawrojn

E-Portfolio Template

[Preview template](#)

Here are several of the most important choices under the MORE menu



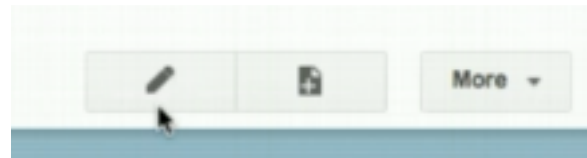
### Overview:

Your website will have a URL that looks like <https://sites.google.com/site/66steveb66> with a look that looks like this.



Give your website a title and one sentence with a link to [summercore.com/videos](https://summercore.com/videos)

In order to EDIT your website, you need to click the PENCIL

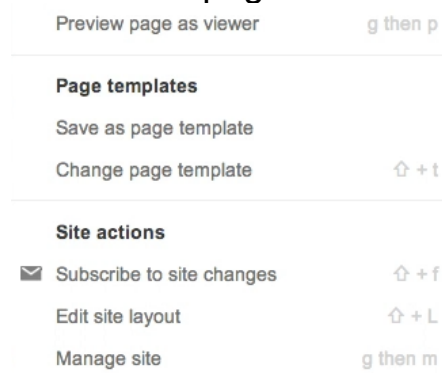


Here are the two most important parts of the MORE button: EDIT SITE LAYOUT and MANAGE SITE.

The EDIT SITE LAYOUT option lets you get a SIDEBAR for your website.

The MANAGE SITE option lets you permanently delete items.

Also under MORE you will find DELETE page.



Good luck! I look forward to seeing a website from each of you that has one link to [summercore.com/videos](http://summercore.com/videos). Don't forget to give me access by choosing SHARING and changing the sharing specs to



phone = 781-953-9699  
skype name = stevebergen (no spaces)  
Email = sbergen33@gmail.com

### Optional Topic for our 30 Minute Conversation (if interested)

This innovative "add-on" to GD was created in the summer of 2012 and is called **Doctopus**. It allows you to take a Google Doc and distribute it to all your students creating an organization within a spreadsheet with several unique features:

- \* you can set a deadline for your students and then automatically "lock" the document at a certain time so that no more entries can be made

\* you can create several levels of the same document (for examples Level A for more capable students and Level B for weaker students) and easily stay organized on a spreadsheet

I have created a 16 minute **optional** video which takes you through this very neat add-on and have "done a simulation" with all of you for this week:

<http://youtu.be/brTFRdGj83c>

*I believe several of you will use it and love it and say it is one of the most valuable things you learned in the course!*



## Doctopus: A helper script for managing Google Docs projects with students

### Features

- Manages a single assignment for your class from one spreadsheet.
- Use your class roster to create and manage **pre-shared** student copies of a master Doc of any type (document, presentation, spreadsheet, PDF, etc.), or a folder of Documents in four handy sharing configurations:
  - **Project groups** - Great for jigsaws! Allows for different starter docs by student group.
  - **Individual - Differentiated** - Allows for different starter docs per individual by level.
  - **Individual - All the same**
  - **Whole class**
- Automatically grant **view-only** or **comment-only** privileges to the rest of the class to facilitate peer review protocols.
- Pre-organizes assignments into a folder of your choosing.
- Can copy and distribute whole folders full of Documents to students (with subfolders and files up to one level down)



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It all begins with what I call a Doctopus Control Spreadsheet that you created in which you create these 3 columns. Notice that in this simulation, I am putting LB and Bill Jones at Level A and so they will get a different worksheet from Jane, Mary and Sally at Level B.

Doctopus Control SS ☆			
File Edit View Insert Format Data Tools Help Doctopus L			
fx   NAME			
	A	B	C
1	NAME	EMAIL	GROUP OPTIONAL
2	LB	larrybirddoll@gmail.com	A
3	Jane Doe	summercore2@gmail.com	B
4	Bill Jones	summercore3@gmail.com	A
5	Mary Smith	summercore4@gmail.com	B
6	Sally King	summercore5@gmail.com	B
7			

Then you work through the 4 steps of Doctopus under the Doctopus menu that you now have. You get Doctopus once you install which I will show you on the next page.

Doctopus Last edit was 45 minutes ago Comments Share

What is Doctopus?

Step 1: Set up sharing basics

Step 2: Choose what to copy and distribute

Step 3: Choose destination folder, set up file naming and notifications

Step 4: Copy and share the assignment

Refresh time of last edit

Attach Goobric

Embargo for grading: Set editors to view only

Send personalized emails to students

Done with this assignment? Transfer document ownership to students