

# Google™ Self-Grading Quiz





## Creating a Form

Open up Google Docs and Select “Create New → Form” .

Create your form with your questions. The spreadsheet must be able to find an exact match with student’s answers and the correct answers (multiple choice works well as it’s easily matched).

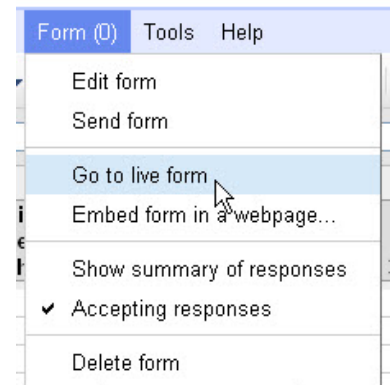
Once you’ve created your questions, go back to your Google Docs list, find the form you just made and open the spreadsheet. You will see that your questions are already filled out in row 1.

Tip: Forms and spreadsheet icons are different.

-  Forms
-  Spreadsheets

Click on the “Form” dropdown menu and select “Go to live form”.

Fill out your quiz with the correct answers to the questions (this is your answer key) and click submit. Close the confirmation page and go back to the spreadsheet in your Google Docs list.



	A	B	C	D
1	Timestamp	Which is an example of a metaphor?	What is the freezing point of water?	Solve 3 + 2 X 4
2	2/12/2011 19:47:12	Her eyes were jewels.	32 degrees Fahrenheit	11
3				

Once you submit the form, these answers will show up automatically in row 2 of your spreadsheet along with a timestamp showing the date and time completed.

On your spreadsheet, highlight the correct answers that are in Row 2. Then copy (**CTRL-C**) those answers and paste (**CTRL-V**) them in the next available cell in Row 1.

	A	B	C	D	E	F	G
1	Timestamp	Which is an example of a metaphor?	What is the freezing point of water?	Solve 3 + 2 X 4	Her eyes were jewels.	32 degrees Fahrenheit	11
2	2/12/2011 19:47:12	Her eyes were jewels.	32 degrees Fahrenheit				
3							

Copy these cells (correct answers)

Paste the answers here.

### Formula writing

To make the quiz self-grading, we need to write a simple **IF** formula.

In this example, click inside cell E2 and type this formula **=IF(B2=E1,1,0)**

Formula: =if(B2=E1,1,0)

	C	D	E	F
	What is the freezing point of water?	Solve 3 + 2 X 4	Her eyes were jewels.	32 degrees Fahrenheit
	32 degrees Fahrenheit		11	1

Roughly translated this formula would read

"If cell B2 is equal to E1, then put a 1 in this cell, otherwise put a 0." The "1" is the number of points that you want your students to have if they get the question correct. Change this as needed.

When you push enter, your formula should disappear and you'll have a "1" in that cell.

	C	D	E	F	G
	What is the freezing point of water?	Solve 3 + 2 X 4	Her eyes were jewels.	32 degrees Fahrenheit	11
	32 degrees Fahrenheit	11			

Autofill Button

Drag autofill to cell G2

Now we need to copy this formula over to the rest of the cells (F2-G2 in this example). Click and hold on the "Autofill" dot in the lower right hand corner of the cell and drag it over to the right, copying it to the other cells.

After copying the formula over, cells **F2** and **G2** should show a "1" in the cell, however the formula for each cell has changed to reflect the corresponding cells.

Formula: =if(C2=F1,1,0)

	E	F	G
1	Her eyes were jewels.	32 degrees Fahrenheit	11
2	1	1	1
3			

## Sum or Average scores

In the column after your final answer, we're going to put in one more formula to either add up or average the student scores.

Click on cell **H2** to input the formula.

To add the scores use this formula:

**=SUM(E2:G2)**

To average the scores use this formula:

**=AVERAGE(E2:G2)**

Formula: `=SUM(E2:G2)`

	E	F	G	H
1	Her eyes were jewels.	32 degrees Fahrenheit	11	Total
2	1	1	1	3
3				

These formulas take all the numbers in the cells ranging from **E2** to **G2** and either add or average them and put that value in the cell.

Our quiz is almost ready for students to take but we need to make one more change. If we were to copy the **"IF"** formula to the other cells where students will answer, our formulas would be wrong. We need to be sure that, in this case, the formula in cell **E2** always references cell **E1** in the formula. To do that click inside of your formula and change **E1** to **\$E\$1** making your formula **=IF(D2=\$E\$1,1,0)**. By doing this, your correct answers will not change as we autofill these formulas after students have taken the quiz.

Do this for each of the **"IF"** formulas to make sure they reference the correct answer. This is called making the cell reference **"Absolute"**.

Formula: `=if(D2=$G$1,1,0)`

	E	F	G	H
	Her eyes were jewels.	32 degrees Fahrenheit	11	Total
	1	1	<code>=if(D2=\$G\$1,1,0)</code>	

Now your quiz is ready, either embed the form in a webpage or give your students the link to the form and have them answer the questions. Once all students have answered, highlight cells **E2** through **I2** and use the Autofill to copy all the formulas down to grade all student answers.

	D	E	F	G	H
ive 3 + 2 X 4		Her eyes were jewels.	32 degrees Fahrenheit	11	Total
11		1	1	0	2
14		0	1	0	1
11		0	0	0	0
12		0	0	0	0
11		1	1	0	2

Note: If you are taking this for a grade, be sure to include student name as a field. Separating first and last name as different questions will allow you to sort them easier once they have completed the quiz.

To see this spreadsheet and form online visit <http://goo.gl/HZv1v>

With thanks to Jessie Spevack