



Technology Applications Virtual Learning

Senior Project Workshop

April 29, 2020



8th Grade Technology Applications

Lesson: April 29, 2020

Objective/Learning Target:

I can use formulas to find the highest, lowest, and average student test scores.



Getting Started:

For your senior project, you have decided to hold several workshops to help teachers utilize Google Sheets as a tool to calculate students' grades and averages. You have decided to create a sample spreadsheet to use as a guide when demonstrating its useful features and capabilities.

Practice:

1. Enter the data in a new google sheet as shown.

f_x	A	B	C	D	E	F
1	Biology Test Scores - Quarter 1					
2	Mrs. Bergeson					
3						
4	LAST	FIRST	TEST 1	TEST 2	TEST 3	AVERAGE
5	Algoo	Jo Jo	83	89	90	
6	Broth	Larry	77	85	81	
7	DeAngelis	Madelyn	99	90	100	
8	DiBugnara	Jaymie	100	90	93	
9	Hom	Barry	88	82	89	
10	Huang	Eddie	70	78	77	
11	Jean-Pierre	Stephanie	90	100	90	
12	Jimenez	Russell	86	90	94	
13	Jung	Alan	70	85	85	
14	Kong	Myrna	93	95	90	
15	Kvitelman	Lisa	93	93	96	
16	Levy	Michael	89	88	95	
17	Merced	Albert	74	80	80	
18	Nemenko	Eileen	77	83	74	
19	Orsini	Eric	80	75	88	
20	Palmatier	Chris	99	90	92	
21	Revinskas	Pamela	88	85	85	
22	Savage	Carlos	82	82	90	
23	Siegfried	Lane	91	98	94	
24	Silva	Jarrett	100	92	98	
25	Stoppini	Solomon	65	77	80	
26	Talignani	John	73	80	75	
27	Thomas	Raymond	84	80	86	
28	Torres	Vincent	91	95	92	
29	Williams	Andre	80	88	84	
30	Zak	Terry	77	82	80	
31						
32						
33	CLASS AVERAGE					
34	HIGHEST TEST SCORE					
35	LOWEST TEST SCORE					

Practice:

2. 3. Find the Average. To calculate each student's test score average, do the following:
 - a. In cell F5, from the Functions drop-down menu, select **AVERAGE**.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	K	L
1	Biology Test Scores - Quarter 1										
2	Mrs. Bergeson										
3											
4	LAST	FIRST	TEST 1	TEST 2	TEST 3	AVERAGE					
5	Algoo	Jo Jo	83	89	90						
6	Broth	Larry	77	85	81						
7	DeAngelis	Madelyn	99	90	100						
8	DiBugnara	Jaymie	100	90	93						

The Functions menu is open, showing the following options: SUM, AVERAGE (circled in red), COUNT, MAX, MIN, and More functions...

Practice:

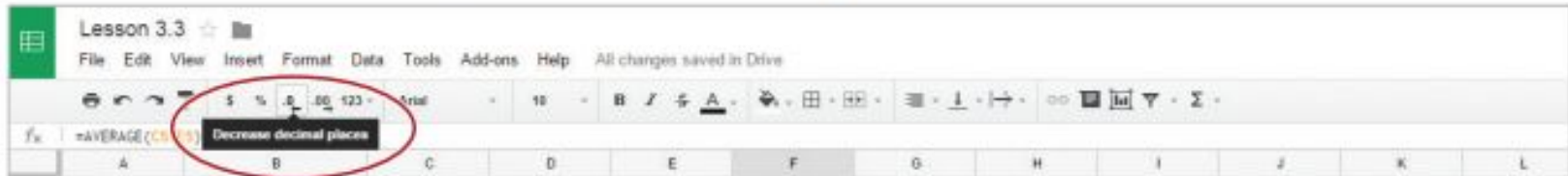
- When prompted to select the range of cells, select cells C5-E5.

	3						
	4	LAST	FIRST	TEST 1	TEST 2	TEST 3	AVERAGE
	5	Algoo	Jo Jo	83	89	90	=AVERAGE(C5:E5)
	6	Broth	Larry	77	85	81	
	7	DeAngelis	Madelyn	99	90	100	

- Hit the Enter key for the spreadsheet to calculate the formula.
- To apply the formula in cell F5 to other cells, select cell F5 and drag the Auto Fill handle down to cells F6-F30. Alternatively, double-click the Auto Fill handle in cell F5.

Practice:

6. **Increase/Decrease Decimal Places.** To increase or decrease the number of decimal places to the right of the decimal point, select cells F5-F30, click the Decrease decimal places icon and remove all decimal places from the average. Notice that the average is rounded to the nearest whole number.



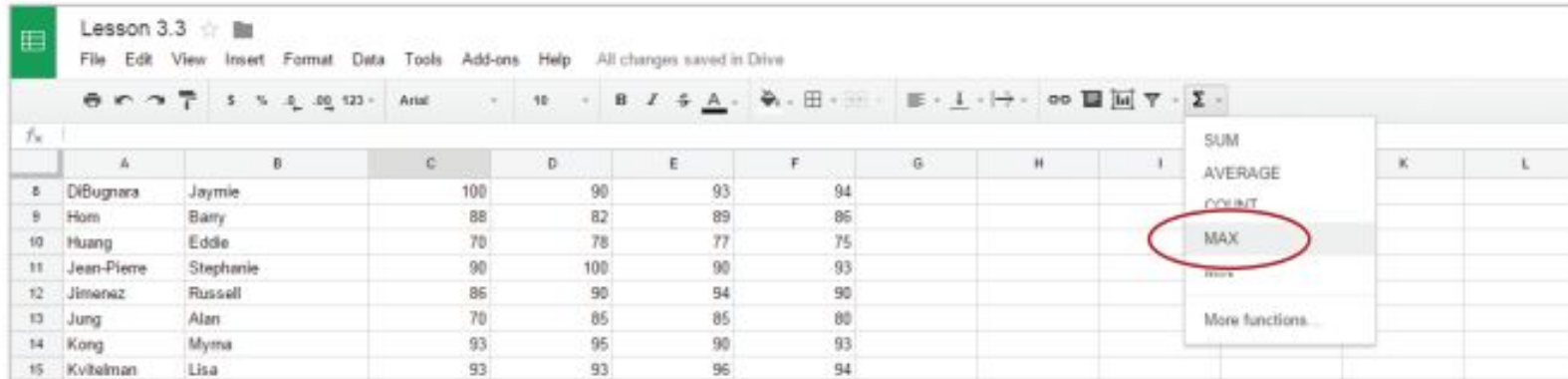


Practice:

7. Insert a formula in cells C33, D33, and E33 to find the class average for each test, then remove all decimal places.

Practice:

8. Find the Maximum. To calculate the highest score for Test 1, do the following:
9. In cell C34, from the Functions drop-down menu, select MAX.



The screenshot shows a Google Sheets spreadsheet titled "Lesson 3.3". The spreadsheet contains a table with 15 rows and 10 columns (A-I). The data in the table is as follows:

	A	B	C	D	E	F	G	H	I
8	DiBugnara	Jaymie	100	90	93	94			
9	Horn	Barry	88	82	89	86			
10	Huang	Eddie	70	78	77	75			
11	Jean-Pierre	Stephanie	90	100	90	93			
12	Jimenez	Russell	86	90	94	90			
13	Jung	Alan	70	85	85	80			
14	Kong	Myrna	93	95	90	93			
15	Kvitelman	Lisa	93	93	96	94			

A function menu is open over cell I34, showing the following options: SUM, AVERAGE, COUNT, MAX (highlighted with a red oval), and More functions...



Practice:

- 10. When prompted to select the range of cells, select cells C5-C30.**
- 11. Hit the Enter key for the spreadsheet to calculate the formula.**
- 12. To apply the formula in cell C34 to other cells, select cell C34 and drag the Auto Fill handle to the right to cells D34 and E34.**

Practice:

13. Find the Minimum. To calculate the lowest score for Test 1, do the following:
14. In cell C35, from the Functions drop-down menu, select MIN

The screenshot shows a Google Sheets spreadsheet titled "Lesson 3.3". The spreadsheet contains a table with student names and their scores on three tests. A function menu is open over cell C35, with "MIN" selected and circled in red.

	A	B	C	D	E	F	G	H	I	K	L
3			TEST 1	TEST 2	TEST 3	AVERAGE					
4	LAST	FIRST									
5	Algoo	Jo Jo	83	89	90	87					
6	Broth	Larry	77	85	81	81					
7	DeAngelis	Madelyn	99	90	100	96					
8	DiBugnara	Jaymie	100	90	93	94					
9	Hom	Barry	88	82	89	86					
10	Huang	Eddie	70	78	77	75					



Practice:

- 15. When prompted to select the range of cells, select cells C5-C30.**
- 16. Hit the Enter key for the spreadsheet to calculate the formula.**
- 17. To apply the formula in cell C35 to other cells, select cell C35 and drag the Auto Fill handle to the right to cells D35 and E35.**



Self-Assessment:

Create a rubric that could be used to assess this assignment.

Use the rubric to check to see if you completed everything.



Additional Practice:

Bold Row. Hint: To select an entire row, click the row heading containing the row number.

Right align cells C4-F4.

Bold cells C33-E35.

Add Borders. To add a line around a cell or group of cells in your spreadsheet, select cells A4-F30, then from the Borders drop-down menu, select All borders.