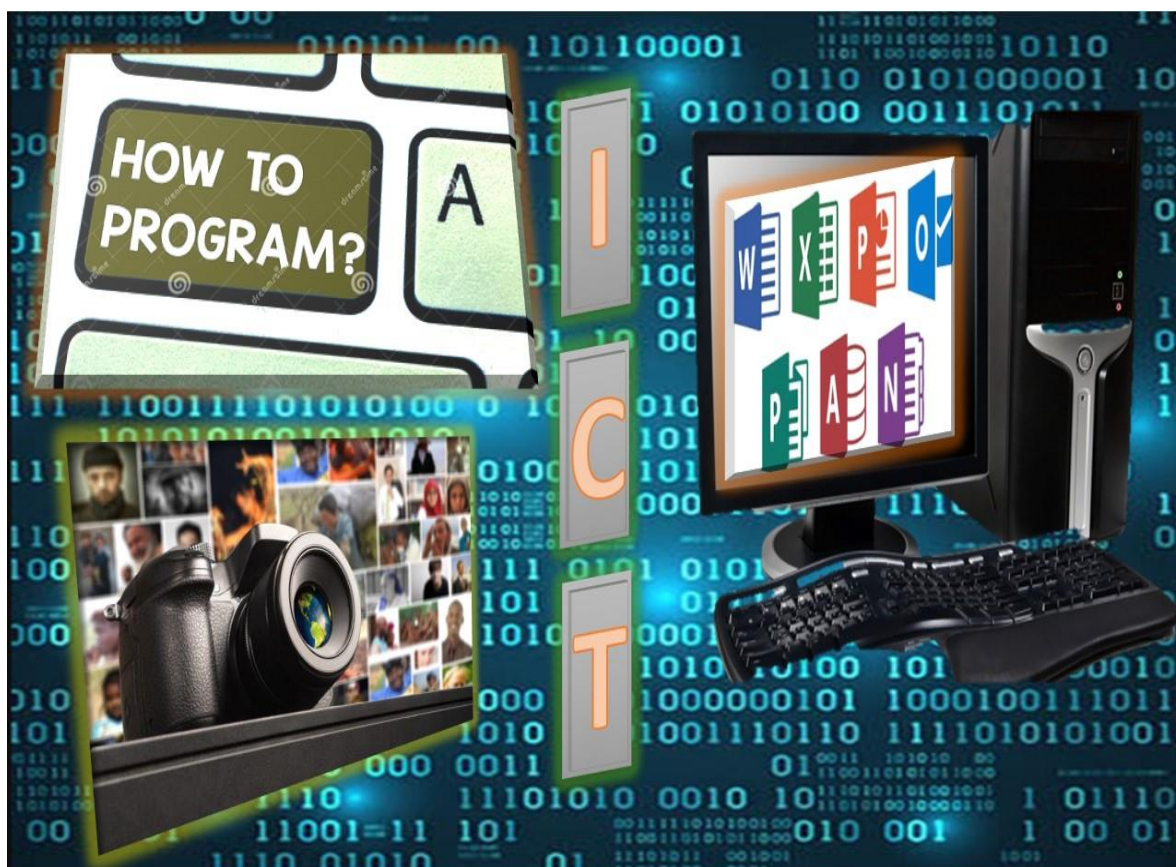




ICT 7 Activity Sheet

Quarter 4 | Week 4

Functions in Excel




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WRITERS

Introductory Message


Welcome to ICT 7!

The **Learning Activity Sheet** is self-directed instructional materials aimed to guide the learners in accomplishing activities at their own pace and time using the contextualized resources in the community. This will also assist the learners in acquiring the lifelong learning skills, knowledge and attitudes for productivity and employment.



For learning facilitator:

The **ICT 7 Activity Sheet** will help you facilitate the leaching-learning activities specified in each Most Essential Learning Competency (MELC) with minimal or no face-to-face encounter between you and learner. This will be made available to the learners with the references/links to ease the independent learning.



For the learner:

The **ICT 7 Activity Sheet** is developed to help you continue learning even if you are not in school. This learning material provides you with meaningful and engaging activities for independent learning. Being an active learner, carefully read and understand the instructions then perform the activities and answer the assessments. This will be returned to your facilitator on the agreed schedule.

ICT-7 ACTIVITY SHEET

Functions in Excel

Learning Competency:

Apply the different parts of a function.

Support Competencies:

- Explain what is a function.
- Apply functions to create arguments to calculate values and cell references.

Background Information for Learners

A function is a predefined formula that performs calculations using specific values in a particular order. Excel includes many common functions that can be used to quickly find the sum, average, count, maximum value, and minimum value for a range of cells.

In this lesson, you will learn the different parts of a function and how to create arguments to calculate values and cell references in order to use functions correctly.

Activity Proper.

Activity 1.

The parts of a function

In order to work correctly, a function must be written a specific way, which is called the **syntax**. The basic syntax for a function is the **equals sign (=)**, the **function name** (SUM, for example), and one or more **arguments**. Arguments contain the information you want to calculate. The function in the example below would add the values of the cell range (A1:A10)

Equal sign
= SUM(A1:A10)
 Function name Argument

Working with arguments

Arguments can refer to both **individual cells** and **cell ranges** and must be enclosed within **parentheses**. You can include one argument or multiple arguments, depending on the syntax required for the function.

For example, the function **=AVERAGE(B1:B9)** would calculate the **average** of the values in the cell range B1:B9. This function contains only one argument.

Multiple arguments must be separated by a **comma**. For example, the function **=SUM(A1:A3, C1:C2, E1)** will **add** the values of all of the cells in the three arguments.

Answer the questions below.

1. What is a function? Give one example of a formula using a function.

2. Explain do you use arguments in writing a formula?

	A	B	C	D	E	F	G	H	I
1							16		2
2									6
3									10
4									
5						12			
6						4			
7						2			

- Given of the table above, write a formula using sum function with multiple arguments. (refer to the example above)

Activity 2.

Creating a function

There are a variety of functions available in Excel. Here are some of the most common functions you'll use:

- **SUM:** This function **adds** all of the values of the cells in the argument.
- **AVERAGE:** This function determines the **average** of the values included in the argument. It calculates the sum of the cells and then divides that value by the number of cells in the argument.
- **COUNT:** This function **counts** the number of cells with numerical data in the argument. This function is useful for quickly counting items in a cell range.
- **MAX:** This function determines the **highest cell value** included in the argument.
- **MIN:** This function determines the **lowest cell value** included in the argument.

To create a function using the AutoSum command:

The **AutoSum** command allows you to automatically insert the most common functions into your formula, including SUM, AVERAGE, COUNT, MAX, and MIN. In the example below, we'll use the **SUM** function to calculate the **total cost** for a list of recently ordered items.

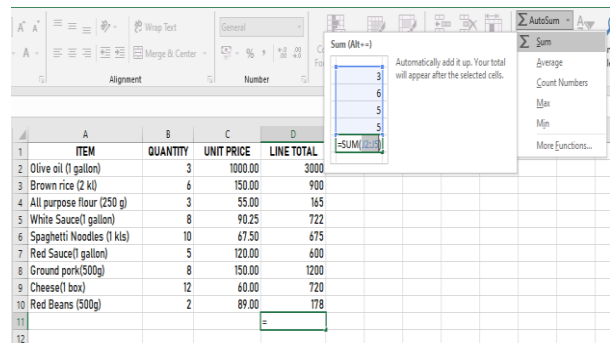
- Open a new workbook, and encode the data below.

	A	B	C	D
1	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
2	Olive oil (1 gallon)	3	1000.00	
3	Brown rice (2 kl)	6	150.00	
4	All purpose flour (250 g)	3	55.00	
5	White Sauce(1 gallon)	8	90.25	
6	Spaghetti Noodles (1 kls)	10	67.50	
7	Red Sauce(1 gallon)	5	120.00	
8	Ground pork(500g)	8	150.00	
9	Cheese(1 box)	12	60.00	
10	Red Beans (500g)	2	89.00	

- Compute For the **LINE TOTAL** by multiplying **QUANTITY** and **UNIT PRICE**.

Example: = B2 * C2

- Use fill handle to copy the formula from cell range **D3:D10**
- Select cell D11**
- In the **Editing** group on the **Home** tab, click the **arrow** next to the **AutoSum** command. Next, choose the **desired function** from the drop-down menu. In our example, we'll select **Sum**.



- Excel will place the **function** in the cell and automatically select a **cell range** for the argument. In our example, cells **D2:D10** were selected automatically; their values will be **added** to calculate the total cost. If Excel selects the wrong cell range, you can manually enter the desired cells into the argument.

=SUM(D2:D10)

	A	B	C	D
1	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
2	Olive oil (1 gallon)	3	1000.00	3000
3	Brown rice (2 kl)	6	150.00	900
4	All purpose flour (250 g)	3	55.00	165
5	White Sauce(1 gallon)	8	90.25	722
6	Spaghetti Noodles (1 kls)	10	67.50	675
7	Red Sauce(1 gallon)	5	120.00	600
8	Ground pork(500g)	8	150.00	1200
9	Cheese(1 box)	12	60.00	720
10	Red Beans (500g)	2	89.00	178
11				=SUM(D2:D10)

- Press **Enter** on your keyboard. The function will be **calculated**, and the **result** will appear in the cell. In our example, the sum of D2:D10 is **8160**.

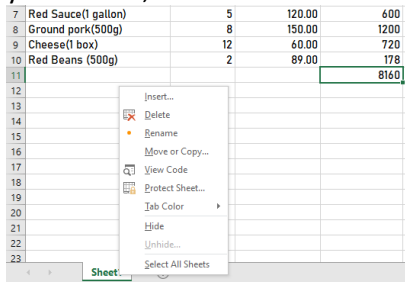
D11 =SUM(D2:D10)

	A	B	C	D
1	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
2	Olive oil (1 gallon)	3	1000.00	3000
3	Brown rice (2 kl)	6	150.00	900
4	All purpose flour (250 g)	3	55.00	165
5	White Sauce(1 gallon)	8	90.25	722
6	Spaghetti Noodles (1 kls)	10	67.50	675
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8	Ground pork(500g)	8	150.00	1200
9	Cheese(1 box)	12	60.00	720
10	Red Beans (500g)	2	89.00	178
11				8160


- Save the workbook as **Q4_W4_PT_***** (where *** is your family name)

To Rename a worksheet

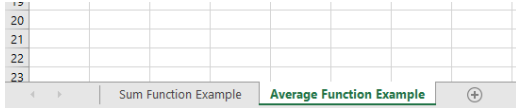
- Point your mouse on the sheet tab, right-click your mouse, and select Rename.



- Change the name from Sheet 1 to **Sum Function Example**, and press Enter on your keyboard.

- Click  on the sheet tab. A new worksheet will appear.

- Name the new worksheet as **Average Function example**, and press Enter key.



To enter a function manually:

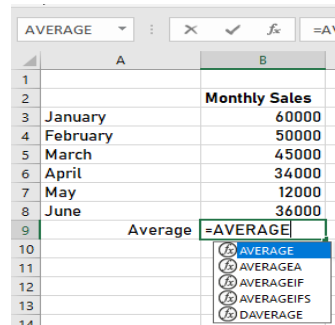
If you already know the function name, you can easily type it yourself. In the example below, we'll use the **AVERAGE** function to calculate the **average sales** for each month.

- Encode the data below in Average Function Example worksheet.

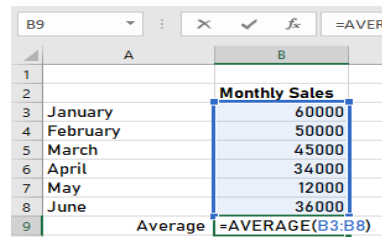
	A	B	C	D	E
1					
2		Monthly Sales			
3	January	60000			
4	February	50000			
5	March	45000			
6	April	34000			
7	May	12000			
8	June	36000			
9	Average				
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

- Select cell B9.

- Type the **equals sign (=)**, then enter the desired **function name**. You can also select the desired function from the list of **suggested functions** that appears below the cell as you type. In our example, **=AVERAGE**.



- Enter the **cell range** for the argument inside **parentheses**. In our example, we'll type **(B3:B8)**. This formula will add the values of cells B3:B8, then divide that value by the total number of values in the range.



- Press **Enter** on your keyboard. The function will be calculated, and the **result** will appear in the cell. In our example, the average number of units sold by each troop is **39500**

	A	B	C	D
1				
2		Monthly Sales		
3	January	60000		
4	February	50000		
5	March	45000		
6	April	34000		
7	May	12000		
8	June	36000		
9	Average	39500		

- Save the workbook with the same filename.

Activity 3.

Multiple Choice. Select the letter of the correct answer.

- Which function would you use to add several numeric values?
 - AVERAGE
 - COUNTA
 - TOTAL
 - SUM
- Which function can find the highest value in a cell range?
 - MAX
 - HIGHEST
 - TOP
 - MAXVALUE
- What command do you select if you want to change the name of a worksheet?
 - Delete
 - Rename
 - Edit
 - Make copy
- What function would you use to get sum of the cells and then divides that value by the number of cells in the argument.
 - SUM
 - MIN
 - MAX
 - AVERAGE

5. Which formula gets the smallest values of a range of cells?
 - a. MAX
 - b. SMALL
 - c. MIN
 - d. SUM
6. Which button can you click to add up a series of numbers?
 - a. the quick total button
 - b. the formula button
 - c. the autosum button
 - d. the total button
7. What would be a correct formula for SUM in Excel?
 - a. =SUM(D2:D10)
 - b. SUM(D2:D10)
 - c. =ADD(D2:D10)
 - d. ADD(D2:D10)
8. A predefined formula in Excel that performs calculations using specific values in a particular order.
 - a. AutoSum
 - b. Average
 - c. Total
 - d. Function

	A	B	C	D	E	F	G
1		34	100	2	89	13	
2							
3							
4							
5							
6			11				
7			45				
8			2				
9			50				
10			3				
11			10				
12							

Base on the data values stated in the table above,

9. Write a formula that will add all the data values arrange horizontally.
10. Write a formula that will get the average of of all the data values arranged vertically.

Complete the statements below.

I understand _____

I don't understand _____

I need more information about _____



Links and/or Other References

<https://edu.gcfglobal.org/en/excel/getting-started-with-excel/1/>

<https://quizizz.com/admin/quiz/5c41d9dbe5b24d001b0d2313/excel-functions-and-formulas>

<https://edu.gcfglobal.org/en/excelformulas/excel-formulas-quiz/1/>

Q4 WEEK 2- PERFORMANCE TASK

1. Open a Q4_W2 workbook and add the additional data below.

	A	B	C	D
1	MARJONEL SNACKBAR			
2	Sales Invoice			
3				
4	MENU ITEM	QTY	UNIT COST	AMOUNT
5	Hotdog Sandwich	50	50	2500
6	Cheese Burger	80	63	5040
7	Spaghetti	100	60	6000
8	Palabok with chicken	105	125	13125
9	French Fries	25	35	
10	Sundae	30	25	
11	Chicken with Rice	65	85	
12	Apple pie	45	22	
13	Burger with Spaghetti	10	89	
14	Burgersteak	120	65	
15			TOTAL	
16			SALES TAX	
17				

2. Change the name of the snackbar to **ALDENTE** SNACKBAR
3. Replace the text in cell A2 to **Sales Inventory Report**.
4. Replace the entry in cell B7 to 90.
5. Replace the entry in cell C2 to 25.
6. Change the **fill color** of the worksheet to the color of your choice.
7. Use **fill handle** to complete the formula in column D.
8. In cell D15, Compute for the **TOTAL** amount of column D.
9. In cell D16, Compute for the **SALES TAX** (the given tax is 25%).
10. Save the workbook as **Q4_W2_PT_*****, where *** is your initial

