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Department of Education

Regional Office IX, Zamboanga Peninsula



Technology and Livelihood Education ICT and Entrepreneurship

Quarter 3 – Module 5

Functions and Formulas in an Electronic Spread Sheet Tool



Name of Learner: _____

Grade & Section: _____

Name of School: _____

N-AVIGATING
O-PPORTUNITIES TO
R-EENGINEER FOR
T-RANSFORMATION &
E-MPOWERMENT



“Be and Do Much Better Each Day
with a Sense of Urgency”



TLE – ICT-Grade 6
Alternative Delivery Mode
Quarter 3 – Module 5: Functions and Formulas
in an Electronic Spread Sheet Tool
First Edition, 2020

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What I Need to Know

Welcome to the world of *Computations!*

Good day! In this module, you will be provided with knowledge and skills of the different formulas and functions which are necessary in the computation using Spread Sheet.

Formulas and Functions are used in Spread Sheet Computation. The skillful use of the different formulas and functions will help you compute with accuracy and speed. All formulas and functions must be appropriately use in a proper order and you must know how to use them to save time and produce the best result.

This module is focused on the Functions and Formulas in an Electronic Spread Sheet. After going through this module, you are expected to:

1. Identify functions and formulas used in Microsoft Excel
2. Give the symbols of operations used in Microsoft Excel



What I Know

Direction: Draw a happy face ☺ if you are familiar with the statement below and a sad face ☹ if you're not.

Statement	Reaction	
	Happy	Sad
1. Electronic Spread Sheet is designed to perform basic mathematical and arithmetic operation.		
2. Functions are calculation that return a result.		
3. The excel functions always begins with an equal (=) sign.		
4. Formulas are combinations of functions, operands, and operators.		
5. The different categories of functions are: Mathematical, Date and time, Logical and Look Up and Reference.		

Lesson

Functions and Formulas in an Electronic Spread Sheet



What's In

Activity 1. Arrange Me!

Direction: Arrange the following jumbled letters to form a word/s.

- | | | | |
|-------|--------------------|-------|---------------|
| _____ | 1. eapsdr etehs | _____ | 4. uicnsntfo |
| _____ | 2. smoifcrto eeclx | _____ | 5. ualeq ngis |
| _____ | 3. omaufrls | | |



What's New

Activity 2. Match Me Up!

Direction: Match column A to column B. Connect them using a line.

Column A

1. Addition
2. Subtraction
3. Multiplication
4. Division
5. Equal Sign

Column B

- a. used in MS to calculate that will give a result
- b. adds the values of the two cells
- c. divides the values of the two cells
- d. subtracts the values of the two cells
- e. multiplies the values of the two cells



What is It

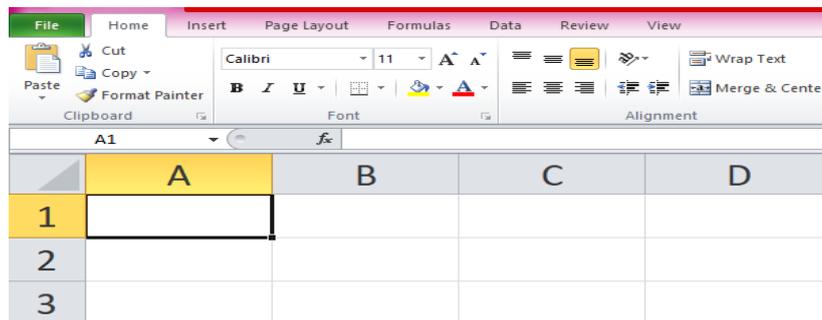
Electronic Spread Sheet application program is designed to perform basic mathematical and arithmetic operations.

Microsoft Excel is one example of the most commonly used computerized worksheets.

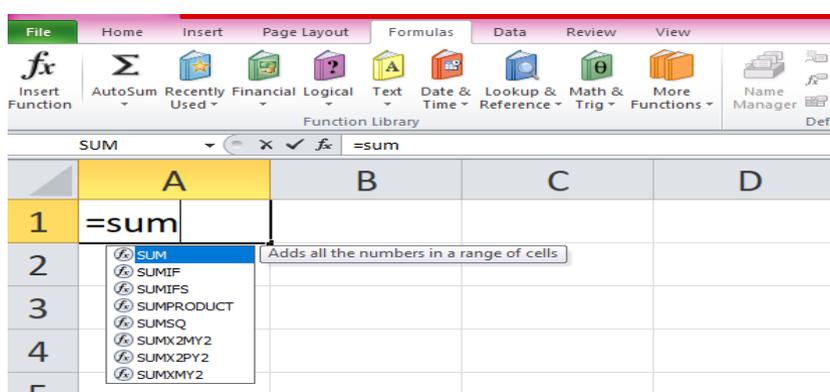
Uses of MS Excel:

1. Accounting and Financial applications
2. Statistics
3. Engineering and Calculations
4. Analyzing Data

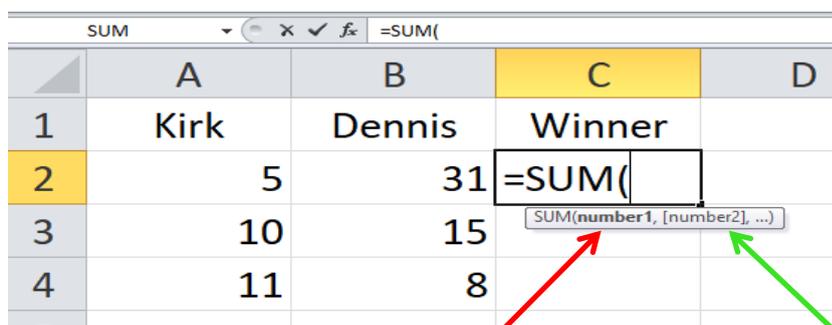
Spread Sheets are designed with functions and formulas that will make calculating numerical data easier and convenient for you. Using formulas and functions will help you increase the accuracy of your calculations while decreasing the amount of time you need to spend in Excel.



Functions are calculations that return a result. To create and enter functions, always start with an equal sign (=). Without it Excel will not calculate a result.



Arguments are the input in functions. Arguments can be in a form of numbers, cell, reference, or texts.

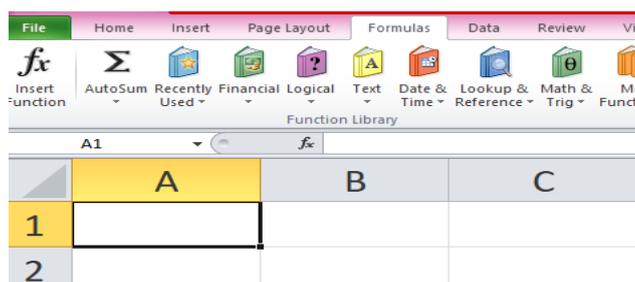


Required Argument

Optional Argument

There are hundreds of functions found in Excel. All these can be accessed using either of the following methods:

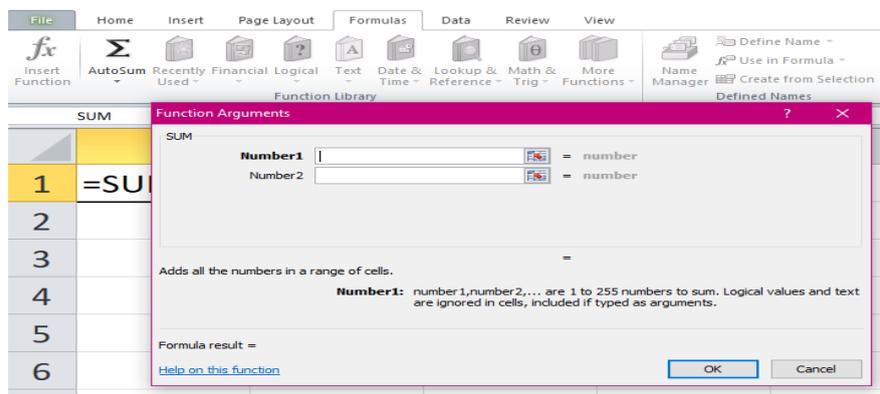
1. Click the Insert Function button—fx from the left side of formulas tab.



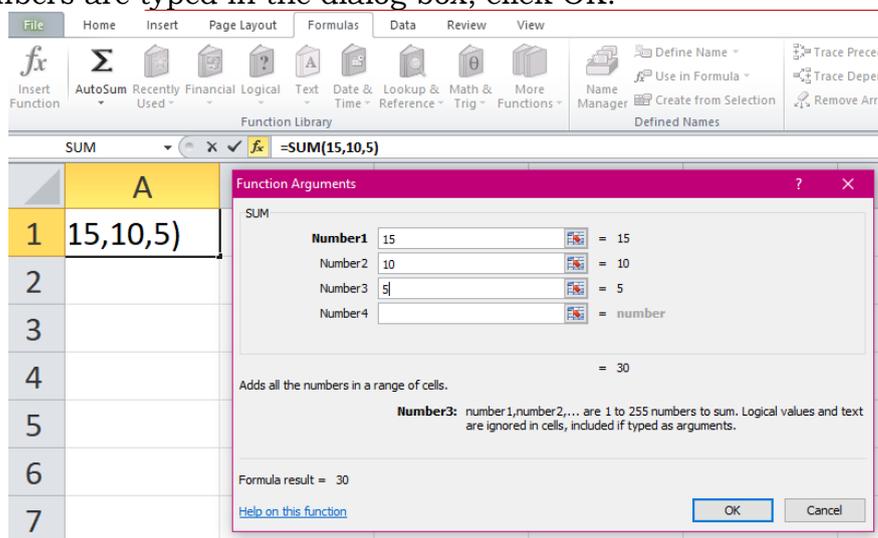
2. Select a function from one of the lists in the Insert Function dialog box. Then click OK.



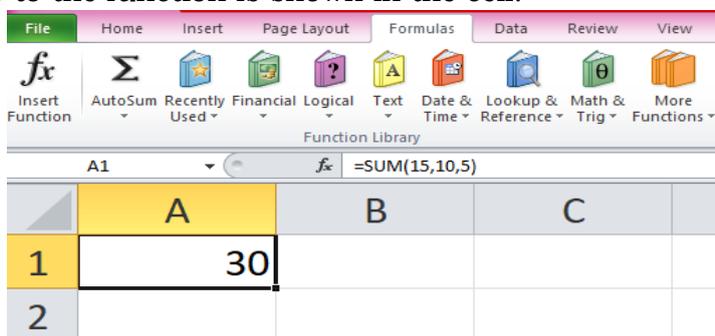
- A **Function Arguments** dialog box will appear that will automatically assist you to input numbers in your selected function. This window indicates what each function does and the arguments that each function considers.



- Directly input numbers into the cells. Useful prompts showing the format of the function and the arguments that should be inserted will appear. You may also use the mouse to click desired ranges that you want to include in the function. Then the cells' address will automatically be inserted in your function. Once the numbers are typed in the dialog box, click OK.



- The answer to the function is shown in the cell.



MS Excel Chart is a visual representation of data in worksheet of the spreadsheet program. It makes it easy to study and interpret data.

Symbol	Operation	Example	Purpose
+	Addition	= A1 + B2	It adds the values of cell A1 + B2
-	Subtraction	= A1 - B2	It subtracts the values of Cell A1 and B2
*	Multiplication	= A1 * B2	It multiplies the values of cell A1 and B2
/	Division	= A1/ B2	It divides the values of cell A1 and B2

Below are some examples of the commonly used functions:

SUM	This is used to add two or more numbers together. Cell references are used in this formula. Separate numbers or cell references by commas then it will automatically be added. Example: =SUM(9,14) or =SUM(A1,B3) For range of cells, separate them with a colon. Example: =SUM(A1:C9)
AVERAGE	This is used to calculate average of a series of numbers. Example= AVERAGE(A1:A10)
COUNT	This is used to count the number of cells in a range that have numbers in them. For instance, if there are five cells that contain numbers in A1 to A15, then the result is 5. Example = COUNT (A1:A15)
LEN	This is used to return the length or a string or an entry Example: =LEN(entrepreneurship) is 16

Formulas are combinations of functions, operands, and operators. These are used when you are manually calculating.

For example, you could put your hanging organizer budget into a formula like this:

$$\text{Remaining Cash} = \text{total cost of materials} - \text{labor}$$

Input the formula in Excel:

= 82-30, then press enter. The answer is 52, which is the remaining cash for your hanging organizer project



What's More

Activity 3. Let's do Together!

- A. Create an Excel file for the expenses below. Using the formulas and functions, calculate the following:
- =SUM (total cost of ingredients used)
 - =COUNT (total number of materials used)
- B. Create a marketing budget in Excel with the following data below:

Marketing Budget	Expenses			
Allowance	700			
	Item Bought	Quality	Cost/Unit	Total
1.	Chicken	1 ½ kg	150/kg	
2.	Tilapia	1 kg	140/kg	
3.	Assorted Vegetables	½ kg	120/kg	
4.	Garlic	¼ kg	80/kg	
5.		Balance Expenses	(Allowance minus total expenses)	



What I Have Learned

After the exercises that you have taken, you are already equipped with the knowledge in electronic spread sheet. Your learning matters to us. Your reply will surely be considered for us to be able to improve your learning. So, take your time, answer it with sincerity.

Activity 4. Reply Me!

Direction: Read the question below and write your reply.

TEACHER

Which part of the lesson that you find hard to understand?

(Your reply here)

↓

TEACHER

Which part of the module you enjoyed most?

(Your reply here)

↓

TEACHER

What learning that you can apply to help you, your family or the community?

(Your reply here)

↓



What I Can Do

Direction: Compute the total sales of a fast food store using MS Excel.

Fast Food				
Sales for the Third Quarter				
Item	April	May	June	Total
1.Hamburger	49,000.00	31,600.00	54,000.00	
2.Chicken Sandwich	34,000.00	43,700.00	23, 000.00	
3.Egg Sandwich	39,450.00	25,000.00	31,900.00	
4.Fries	23, 000.00	32,000.00	35,000.00	
5.Iced Tea	16,000.00	24,000.00	33,800.00	
6.Coke Float	12,000.00	14,000.00	20,000.00	
7.Mango Grahams	10,000.00	17,000.00	21,000.00	
8. Peach Mango Pie	20,000.00	30,000.00	35,000.00	
9. Tuna Pie	22,000.00	24,000.00	21,000.00	
10. Cheese Dog	18,000.00	19,000.00	25,000.00	



Assessment

Test I. Multiple Choice

Direction: Choose the best answer. Write the letter of your answer on the space provided before each number.

- _____ 1. It is designed to perform basic mathematical and arithmetic operations.
 a. Spread Sheet b. Functions c. Formulas d. Chart
- _____ 2. The most commonly used computerized worksheet.
 a. MS Chart b. MS Excel c. MS Word d. MS Powerpoint
- _____ 3. Which of the following does not belong to the group?
 a. Sum b. Average c. Len d. Total
- _____ 4. It always begins with an equal sign.
 a. Formulas b. Functions c. MS Excel d. M S Chart
- _____ 5. The following are commonly used functions in MS Excel, except;
 a. Sum b. Average c. Count d. Length

Test II. Fill Me!

Directions: Supply the missing information. If the missing information is in column 1, identify the operands, if the missing information is in column 2, write its purpose or if the missing information is in column 3, give the symbol.

Operands	Purpose	Symbol
1.Addition	_____	+
2._____	It subtracts the values of the two cells	-
3.Multiplication	It multiplies the values of the two cells	_____
4.Division	_____	/
5.Equal Sign	It is used in MS Excel to calculate that will give a result	_____



Answer Key

What I Know
 answers may vary

What I Need to Know
 answers may vary

What I Can do
 1. 134,600
 2. 100,700
 3. 96,350
 4. 90,000
 5. 73,800
 6. 46,000.00
 7. 38,000.00
 8. 85,000.00
 9. 67,000.00
 10. 62,000.00

Assessment
Test I
 1. A It adds the cell
 2. B Subtraction
 3. D *
 4. B It divides the cell
 5. D =
Test II

What I Know
 answers may vary

What I Know
 1. spread sheets
 2. microsoft excel
 3. formulas
 4. function
 5. equal sign

What Is

What's New
 1. b
 2. d
 3. e
 4. c
 5. a

What's More
 1. 225
 2. 140
 3. 60
 4. 20
 5. 255

REFERENCES

Modified In-School Off-School Approach Modules (MISOSA) Self-Instructional Materials, Department of Education, Revised 2010 DepED Learning Resource Management and Development System