

## Objectives

- Data Types and Formatting
- Cell Referencing
- Formulas and Precedence of Operations
- Logical Functions

## Part 1

1. Make sure your tables look like the ones shown below
  - Font “courier new” of size 14
  - Row height 22.5 and column width 21
  - Excel sheet should be named “Profits”
  - The text data “titles” must be bold, font 15, color “50 red, 85 green”, center, top align
  - Create a copy of the sheet in the same book and give it the name “copied”
  - Use 1000 separator, with no decimal places
  - Inside and outside borders
  - Apply currency format for Dell column, but make the two other companies accounting

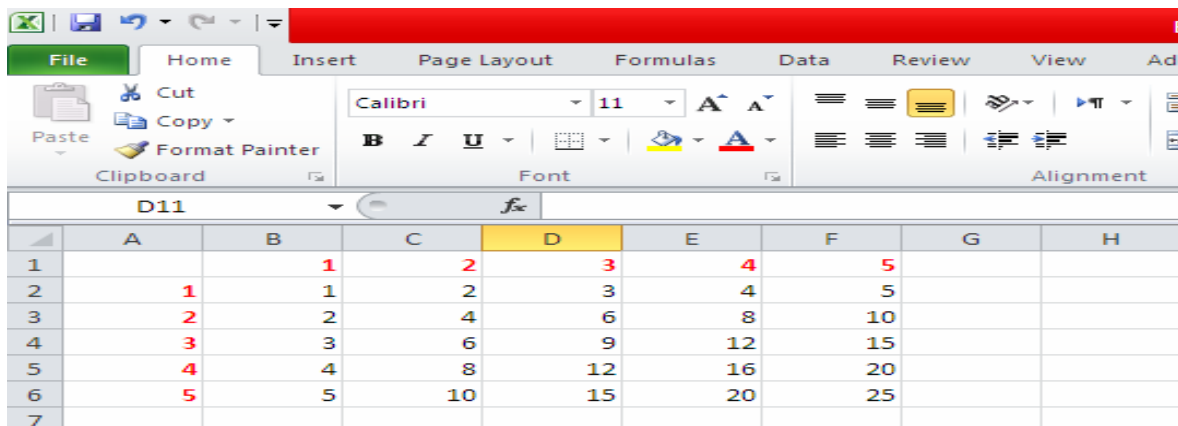
company	Dell	HP	Toshiba
January	\$350,000	\$ 260,000	\$ 300,000
February	\$500,000	\$ 490,000	\$ 370,000
march	\$240,000	\$ 200,000	\$ 250,000
April	\$400,000	\$ 300,000	\$ 250,000
May	\$520,000	\$ 410,000	\$ 360,000
June	\$300,000	\$ 320,000	\$ 400,000
July	\$200,000	\$ 250,000	\$ 260,000
August	\$400,000	\$ 600,000	\$ 400,000
September	\$1,000,000	\$ 720,000	\$ 560,000
October	\$500,000	\$ 520,000	\$ 530,000
november	\$370,000	\$ 390,000	\$ 400,000
December	\$100,000	\$ 120,000	\$ 140,000

- Merge cells, shrink to fit, wrap text and format painter

conclusion	
dell	number 1
HP	number 2
Toshiba	number 3

## Part 2

2. Create a function in the first cell, that will be dragged all over the other cells, to calculate the multiplication of each column header by each row header; as shown in the figure below



	A	B	C	D	E	F	G	H
1		1	2	3	4	5		
2	1	1	2	3	4	5		
3	2	2	4	6	8	10		
4	3	3	6	9	12	15		
5	4	4	8	12	16	20		
6	5	5	10	15	20	25		
7								

## Part 3

3. Open a new sheet, rename it “Formulas”
  - A. Label column A as X and column B as Y.
  - B. Let  $X = 1, 2, \dots, 10$  and  $Y = 2, 4, \dots, 20$
  - C. From column C till G name them as f1, f2, ..., f5. Calculate them where:
    1.  $f1 = 2x^3 - 6x^2$
    2.  $f2 = 4 * - Y^{3/4} - \text{sqr}(Y+3)$
    3.  $f3 = \sin x + \cos x$
    4.  $f4 = 3 \tan^2 x$
    5.  $f5 = 6 \log(x^2+1)-x$
  - D. Based on the results, calculate the following:

- a. Count the data values
- b. Max and Min value
- c. Range
- d. Variable  $Z = \text{sum}(X/Y)$

#### **Part 4**

4. Open the sheet named “Calculation”

- Construct a function called “Bonus” that calculates for each salesman the amount of his bonus as follows:
  1. When the income is more than or equal the min value **and** less than or equal the max value, it will multiply the bonus percentage by the income.
  2. Otherwise, it will show message “No Bonus”.
- Compute the average for the income if it is greater than 100000
- Count the incomes that are greater than 100000.

ROUNDUP    :    ✕    ✓ <i>fx</i> =IF(AND(B7>=\$B\$3,B7<=\$B\$4),\$B\$2*B7,"No Bonus")							
	A	B	C	D	E	F	G
1							
2	Bonus Percentage	10%					
3	Min	1000					
4	Max	130000					
5							
6		Income	Bonus				
7	Salesman A	3000	=IF(AND(B7>=\$B\$3,B7<=\$B\$4),\$B\$2*B7,"No Bonus")				
8	Salesman B	2500	IF(logical_test, [value_if_true], [value_if_false])	58350			
9	Salesman C	50	No Bonus		Count >100000	3	
10	Salesman D	1234	123.4				
11	Salesman E	120000	12000				
12	Salesman F	150000	No Bonus				
13	Salesman G	505050	No Bonus				
14	Salesman H	3214	321.4				
15	Salesman I	22	No Bonus				
16	Salesman J	5000	500				
17							

**Lab Task 1**

- Open new sheet, name it “Fruits”, write in it the below table.
  - a) Calculate the number of cells containing values greater than 50.
  - b) Calculate the number of cells containing fruit type “apples” and values less than 90.
  - c) Get the total number of all types of fruits

Fruit Data	Number Data
apples	86
oranges	54
peaches	75
apples	32