

MS-EXCEL-2013

MS Excel is the second component of MS Office.

MS Excel is window based separate sheet package developed and marketed by MS company of USA.

MS Excel is mainly used for arithmetical financial and commercial calculations. As we are familiar of some options already in MS Word. So we are going to study the only un-familiar topics in MS Excel.

* What is Work Book ?

Each file of MS Excel is called worksheet. It is a combination of worksheets.

* What is Worksheet ?

Each page of MS Excel is called worksheet. It is a combination of horizontal row and vertical columns.

“ ————— ”
Horizontal row

“ | ”
← vertical column

* What is Row ?

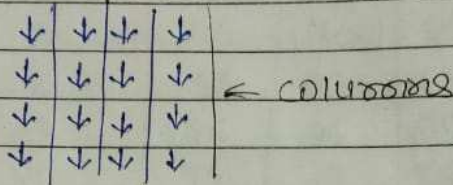
Row is combination of horizontal lines.

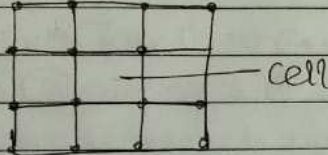
→ → → → → →
→ → → → → →
→ → → → → →
→ → → → → →

← Row.

Date: [] [] [] [] [] []

- What is Columns?**
 Columns is the combination of vertical line.


- What is cell?**
 It is the intersection point of row and column is called cell.



Note: - The extension name of MS Excel 2013 is 'XLSX' and by default file name is "Book 1"

* How to open MS Excel.

Process 1 → Start

↓

All Apps

↓

MS office 2013

↓

MS Excel 2013

Process 2 → Start

↓

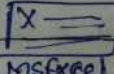
Type here to select

↓

Excel

Process 3 - [BB] + R → Run → Excel OK.

Process 4 - Icons:-



→ Icons of MS Excel 2013

→ Right Click to open

→ Format of excel

Double click → Page no 110

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Date _____

Project -

	A	B	C	D	E	F	G	H	I
1	Name	Roll no	Math	Chem	Bio	Hindi			
2	Rajul	1	45	70	35	40			
3	Ramul	2	55	60	65	86			
4	Ramul	3	66	36	75	74			
5	Raj	4	75	79	86	38			
6	Rahul	5	89	84	36	49			

Formula ① Total = $C_2 + D_2 + E_2 + F_2 \dots$

② $\text{Per}(\%) = H_2 / S_2$

Project:

	A	B	C	D
1.	Item	Qty	Rate	Total
2	Mouse	10	200	
3	Keyboard	20	250	
4	Mouse	30	25	
5	Tank	35	40	
6	PC	40	36	

Formula = $B_2 * C_2$

★ Sheet Tab :- It display the name of worksheet. The name of active worksheet displayed in bold letter this is a facility available to move from one sheet to another by clicking add edit tabs.

[:] Colon Sign

- Formula Bar :- It show the formula or contain of the active cell.
- Cell address/Name box :- It show the address of the active cell.
- Range of cell :- It is a group of continuous cell that touch each other and took the shape of rectangle or square.

It is denoted by [:] colon sign.

	A	B	C
1	60	20	30
2	70	70	70
3	80	70	8

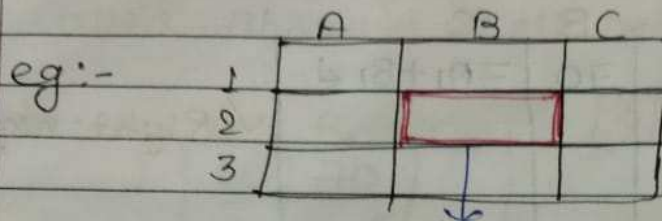
= (A1:C3)

Formula :- Sum arrangement (A1:C3)

↓
Range of cell

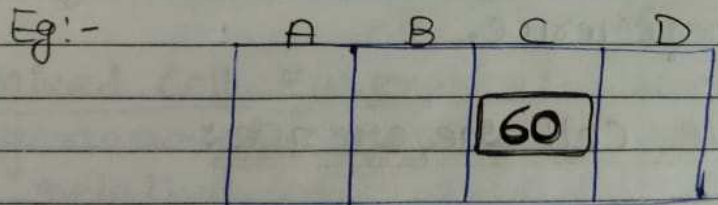
Note: Syntax $\rightarrow = \text{Sum} (\text{First cell address} : \text{Last cell address (max/min)})$

* Active cell/Cell pointer :- It is the cell with dark boundary around. It is the boundary of a cell is called cell pointer. Which includes the current active cell.



Active cell/cell pointer.

- How to determine the cell address?
First we decide the column address and then decide the row address and combining the address of row and column then we determine the address of cell.



$$60 = C_2$$

C = Column address

2 = Row address

- How to Calculation in Max Excel?
~~was~~
we use cell address instead of value of the cell to be calculated.

eg:-

	A	B	C
1.	60	70	=60+70
2.			
3.			

✗ Wrong way

	A	B	C
1.	60	70	=A1+B1
2.			
3.			
4.			

✓ Right way

Note:- each and every formula must be started with $\boxed{=}$ equal sign.

* Cell reference:- Certain address of a cell is called cell address or cell reference.

There are three types of cell reference.

* Relative Cell reference:-

When address of a cell is denoted by name of column and number of row simply is called relative cell reference.

eg:-

	A	B	C	D
1	60	70	70	
2				
3				

=A1+B1+C1 Relative cell reference

Finance

* Absolute cell reference :-

When address of a cell is denoted by name of column and number of row with **[\$]** dollar sign then it is called absolute cell reference.

Formula
=A1
F4
↓
\$A1
+b1 F4
↓
\$A1

Ex:-

	A	B	C
1	60	70	
2			

[\$] → **Shift+F4 key**

= \$A\$1 + \$B\$1 ←

Note: (i) \$A → column fixed

(ii) A\$2 → row fixed

(iii) **\$A** **\$2**

↓
press "F4" key

Mixed Cell Reference:- When a formula generated by the combination of relative and absolute cell reference then it is called Mixed Cell reference.

⇒

	A	B	C	D
1	60	60	20	
2				
3				

Ex = A1 + \$B2 + \$C\$1 ↓

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* Difference between relative & absolute cell reference.
 When relative cell reference a formula can be copy from one cell to another cell.
 Where all is absolute cell reference does not.

Project 1

	A	B	C	D	E	F	G
1.	Name	Math	Che	Hindi	Total R	Total A	Total M
2.							
3.							

Formula: ① Total R $\rightarrow = B_2 + C_2 + D_2$
 ② Total A $\rightarrow = \$B_2 + \$C_2 + \$D_2$
 ③ Total M $\rightarrow = \$B_2 + C_2 + \D_2

Project 2
Relative cell Project 2

- XLSX: - colon sign denoted by \rightarrow Range of cell
 If project in sheet then double right click

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Project (3):-

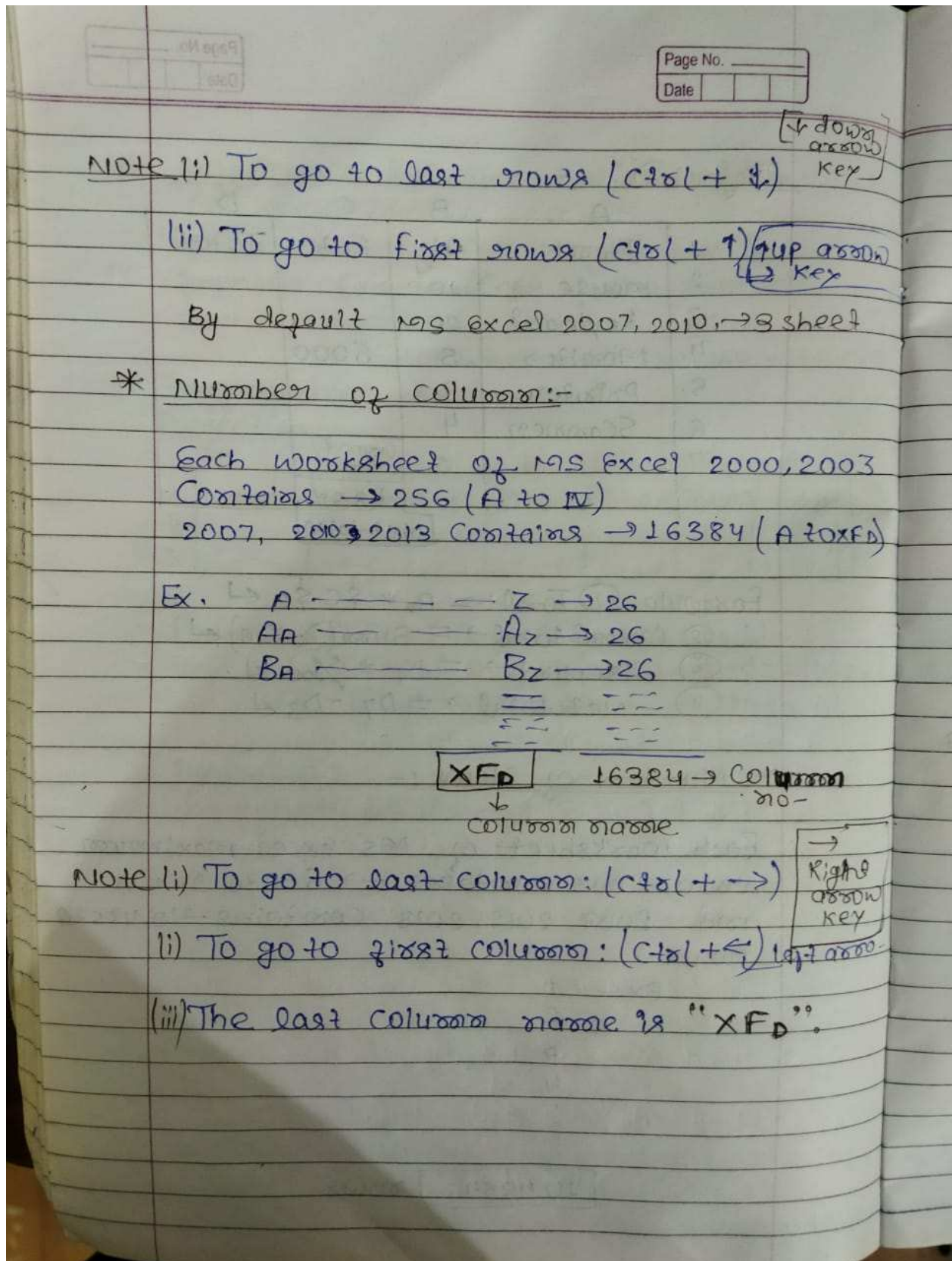
	A	B	C	D
1.	Item	Qty	Rate	Total
2.	Mouse	10		
3.	Keyboard	20		
4.	Monitor	5	6000	
5.	Printer	3		
6.	Scanner	4		
7.			Gross total	
			dis 5%	
			Net total	

Formula: (1) Total := B2 * C2 ←
 (2) Gross total → = Sum(D2:D6) ←
 (3) Discount → = D7 * 5/100 ←
 (4) Net total → = D7 - D8 ←

* Number of rows:-

Each worksheet of Ms Excel maximum 2000, 2003 contains → 65536 rows and 2007, 2010, 2013 contains → 10,48576 rows.

Ex:-
 1
 2
 3
 4
 ⋮
10 48576 rows



Number of Worksheet:-

Each worksheet of MS Excel contains one worksheet by default. The number can be increase or decrease the maximum number of worksheet is unlimited and maximum number of worksheet (1).

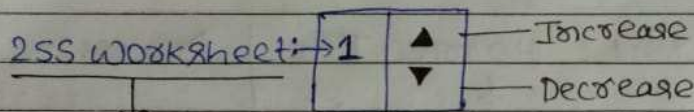
* To change default setting of worksheet

Process :- File Tab

↓
Excel option

↓
General

↓
Include this many sheet



↓
O.K

↳ Close excel → open excel

Note :- The Entry must be less than or equal to 255.

• To insert a worksheet.

Process :

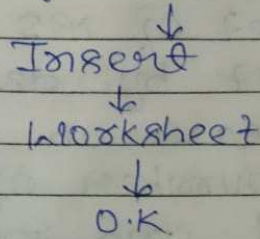
Home Tab

↓
Cell (group)

↓
Insert

↓
Insert sheet ↵ (Enter)

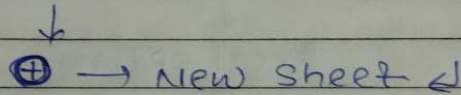
Process 2: Right click at sheet Tab



Process 3: From keyboard
press

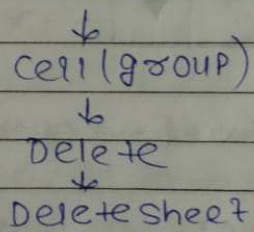
"" Shift + F11 "" key

Process 4: click on sheet Tab.

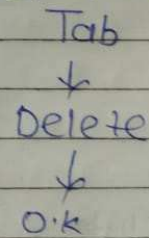


• To delete a worksheet:-

Process 1: Home Tab

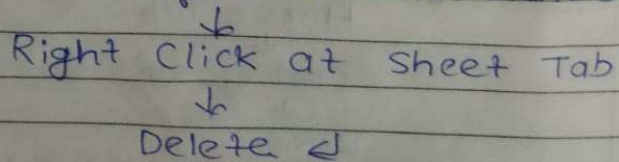


Process 2: Click at sheet Tab

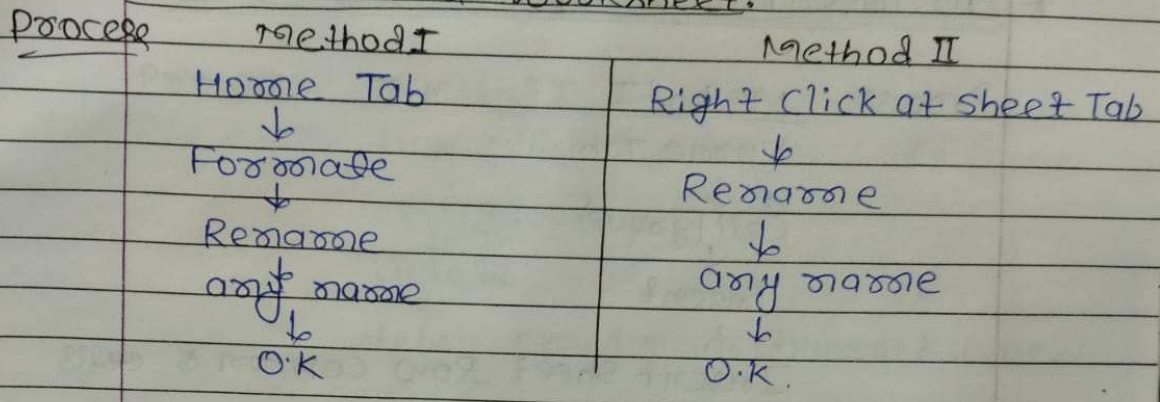


Note: To delete all sheet

Process: press "Shift + To select all sheet



• To Rename a worksheet.



Method III
Double click at sheet → any name [ok]

* Double click Table insert → Home Tab
↓
Insert
↓
Insert C/R
↓
Merge cell

Project:-

	A	B	C	D	E	F	G
1.	Item	Qty	Rate	Total	loading	unloading	Net total
2.	mositos	20	5000		100	120	
3.	CPU	50	6000		200	210	
4.	TV	20	7000		150	160	
5.	mobile	10	11000		120	130	

Formula: Total → = B₂ * C₂ ↓

Net total = D₂ + E₂ + F₂ ↓

* To insert a Row, Column & cells :-

Process:- Method I

Home Tab

↓
Cell (group)

↓
Insert

↓
Insert Sheet Row Column & cells

↓
O.K

Method II

Right click at cell

↓
Insert

↓

Insert	?	X
<input type="radio"/> Shift cell Right		
<input checked="" type="radio"/> Shift cell down		
<input type="radio"/> Entire Row		
<input type="radio"/> Entire Column		
<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Cancel	

Method III

press "Ctrl + [+]"

↓

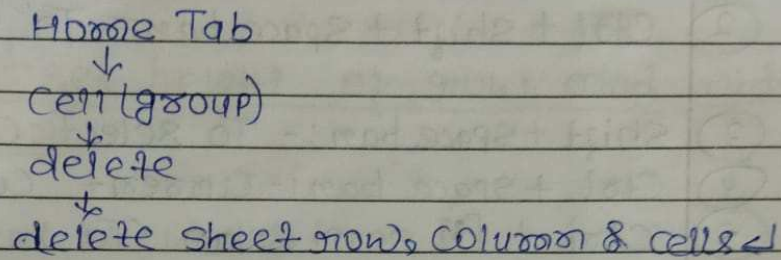
Insert

↓

Insert	?	X
<input type="radio"/> Shift Cell right		
<input type="radio"/> Shift cell down		
<input type="radio"/> Entire Row		
<input type="radio"/> Entire Column		
<input checked="" type="checkbox"/> Ok	<input type="checkbox"/> Cancel	

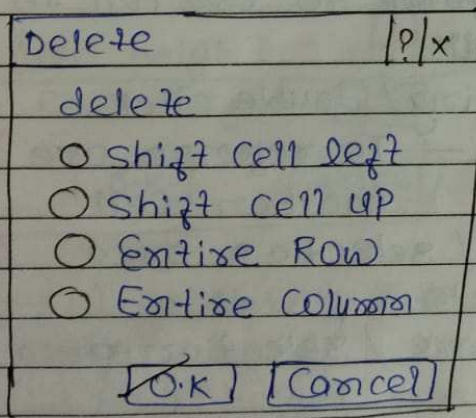
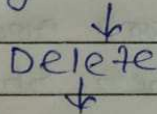
* To delete a Row, Column and cells.

Process:- Method I



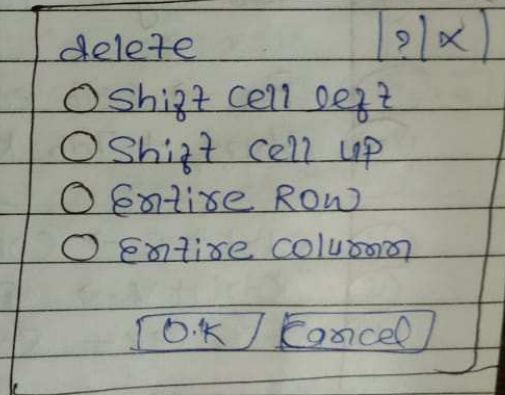
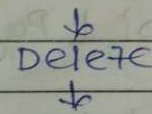
Method II

Right click at cell



Method III

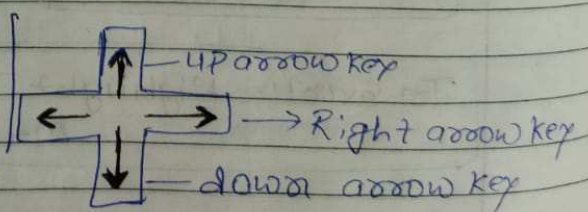
process: ctrl + [-]"



In Excel:- Highlight Tabs through keyboard
Alt +

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* Some shortcut keys in use ms excel.

- ① $Ctrl + A \rightarrow$ To select entire document
- ② $Ctrl + Shift + Space bar =$ To select entire sheet
- ③ $Shift + space bar :-$ To select current row.
- ④ $Ctrl + space bar :-$ current column
- ⑤ $Ctrl + [;]$ semi colon :- To insert current system date.
- ⑥ $Ctrl + Shift + [;]$ semi colon \rightarrow To insert current system time
- ⑦ $Ctrl + Page up/down :-$ To jump one sheet together sheet
- ⑧ Tab key :- To jump to one cell to another cell.
- ⑨ $F_2 \rightarrow$ cell editing / double click
- ⑩ $Shift + Tab key -$ To reverse one cell to another cell.
- ⑪ $Ctrl + C \rightarrow$ Copy / selection area
- ⑫ $Ctrl + V \rightarrow$ Paste
- ⑬ ESC key - Remove / selection area
- ⑭ Arrow key :- 
- ⑮ $F_{11} :-$ Create chart
- ⑯ $Alt + F_{11} -$ Insert chart
- ⑰ $F_8 -$ Extend chart

- (18) Shift + F¹¹ - Insert sheet
 (19) Ctrl + [+] - Insert row, column & cell
 (20) Ctrl + [-] - delete row, column & cell

* How to set height of row and width of column.

- (21) Ctrl + D - Fill down

process :- Method I

Home Tab → cell (group) → format →
 ↓
 Row height / column width

Row height	[?] x	Column width	[?] x
Row height	[15]	Column width	[8.43]
[O.K]	[Cancel]	[O.K]	[Cancel]

Note :- (i) By default Row height → 15

(ii) By default Column width → 8.43

(iii) Row height must be between 0 & 409.

(iv) Column width must be between 0 and 255 characters.

Method II

process :- Drop the mouse pointer at the insertion point of the row and column address and drag to required direction.

Project:-

	A	B	C	D	E	F	G
1.	Item	Qty	Rate	Total	separate Dis	discount	Net Total
2.	Pen	10	50		2%		
3.	Book	20	100		3%		
4.	Monitor	20	50		2%		
5.	keyboard	40	250		5%		
6.	Mouse	50	150		2%		

Formula - Total :- $= B_2 * C_2 \leftarrow$

Dis :- $= D_2 * E_2 \leftarrow$

NI :- $= D_2 - F_2 \leftarrow$

↓

Select Table → Copy Paste

~~Form~~

Formatting :- select all

- (i) all border (ii) cell style (iii) font color
(iv) font size (v) Bold . . . etc

HOME TAB

(i) Clipboard Group :-

- (a) Cut (Ctrl + X)
(b) Copy (Ctrl + C)
(c) Paste (Ctrl + V)