

# Advanced Formulas and Functions

## How to write formula in Excel?

1. Select the cell
2. Enter and equals sign so Excel knows a formula is being entered
3. Using the example of the four times table
  - In cell E3 type: **=A3\*C3**
  - Press enter
4. Select E3 and drag bottom right corner down to E12
5. The formula has been applied to all these cells

↳ = fun()

→ formula  
functions

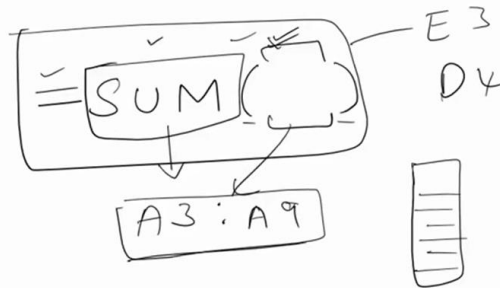
Auto fill



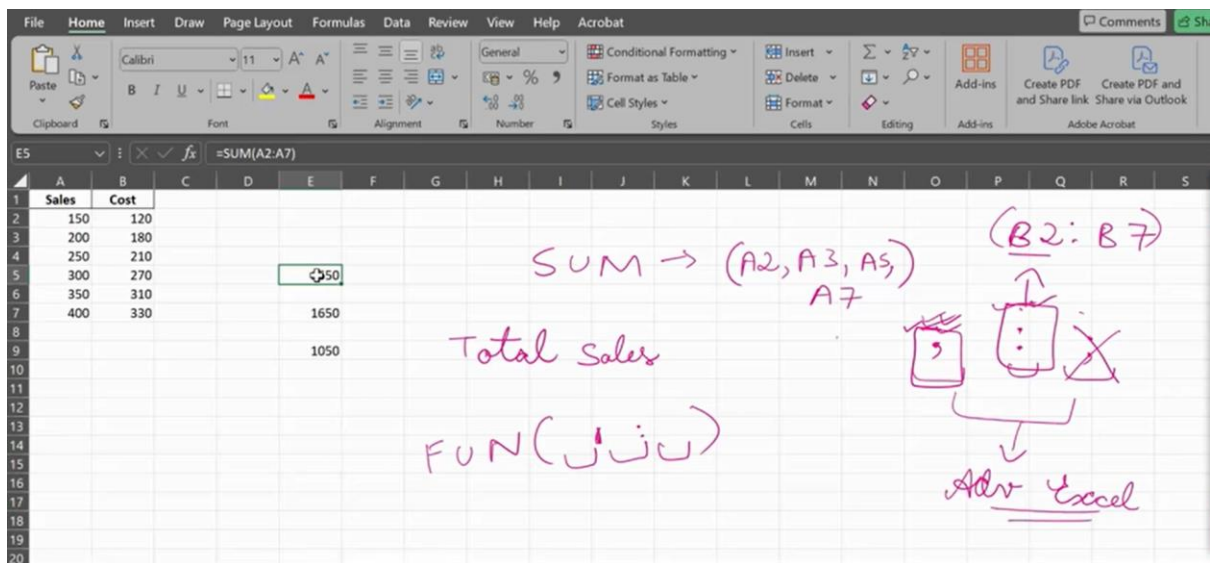
	A	B	C	D	E	F
1						
2						
3	1	X	4	=	4	
4	2	X	4	=	8	
5	3	X	4	=	12	
6	4	X	4	=	16	
7	5	X	4	=	20	
8	6	X	4	=	24	
9	7	X	4	=	28	
10	8	X	4	=	32	
11	9	X	4	=	36	
12	10	X	4	=	40	
13						
14						

## Functions covered

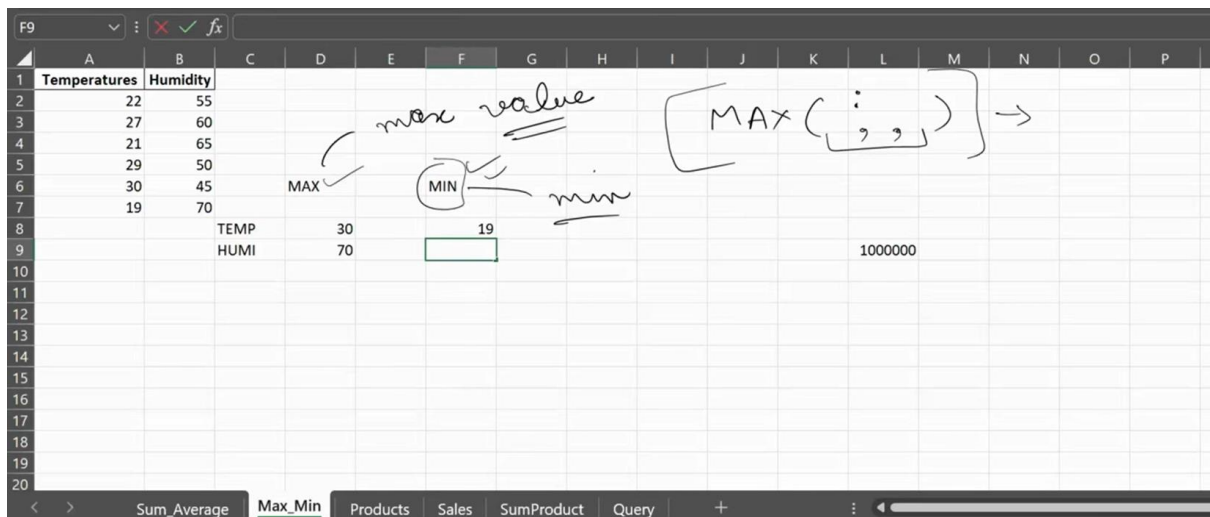
- SUM
- AVERAGE
- MAX
- MIN
- XLOOKUP
- SUMPRODUCT
- OFFSET
- QUERY



→ Where to get o/p  
→ How to get o/p



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Sales	Cost																	
2	150	120																	
3	200	180																	
4	250	210																	
5	300	270																	
6	350	310																	
7	400	330																	
8					1650														
9					1050														



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Temperatures	Humidity														
2	22	55														
3	27	60														
4	21	65														
5	29	50														
6	30	45														
7	19	70														
8			TEMP	30												
9			HUMI	70									1000000			

Handwritten notes on a spreadsheet showing a **LOOKUP** function example.

**Table Data:**

Product ID	Product Name
101	Widget
102	Gadget
103	Thingy
104	Doodad

**Handwritten Notes:**

- LOOKUP** (with a red 'X' over it)
- Search** (with a red arrow pointing to the Product ID column)
- first match** (with a red arrow pointing to the first row)
- what to return** (with a red arrow pointing to the Product Name column)
- where are we looking for** (with a red arrow pointing to the Product ID column)
- 102** (with a red arrow pointing to the Product ID column)
- "102",** (with a red arrow pointing to the Product ID column)

Handwritten notes on a spreadsheet showing a **SumProduct** function example.

**Table Data:**

Unit	Price	Sales
1	2	100
2	3	10
3	4	10

**Handwritten Notes:**

- SumProduct** (with a red arrow pointing to the formula bar)
- unit Prices** (with a red arrow pointing to the Price column)
- Sales** (with a red arrow pointing to the Sales column)
- Total Revenue** (with a red arrow pointing to the result)
- 200 \$** (with a red arrow pointing to the result)
- 2 \$** (with a red arrow pointing to the result)
- 32 \$** (with a red arrow pointing to the result)
- Revenue** (with a red arrow pointing to the result)
- Sum** (with a red arrow pointing to the result)
- unit Sales** (with a red arrow pointing to the Sales column)
- unit** (with a red arrow pointing to the Unit column)
- TR** (with a red arrow pointing to the result)
- A2:A4** (with a red arrow pointing to the Unit column)
- B2:B4** (with a red arrow pointing to the Price column)
- Sales** (with a red arrow pointing to the Sales column)
- unit** (with a red arrow pointing to the Unit column)

Handwritten notes on a spreadsheet showing an **OFFSET** function example.

**Table Data:**

Name	Score	Age
Alice	88	28
Bob	92	34
Charlie	87	29
David	93	40

**Handwritten Notes:**

- OFFSET(B2,2,0,2,2)** (with a red arrow pointing to the formula bar)
- SP** (with a red arrow pointing to the formula bar)
- (B2,2,0,2,2)** (with a red arrow pointing to the formula bar)
- starting Point** (with a red arrow pointing to the formula bar)
- # Rows** (with a red arrow pointing to the formula bar)
- width** (with a red arrow pointing to the formula bar)
- height** (with a red arrow pointing to the formula bar)