



# EXCEL MODULE 2 – FORMULA REFERENCING

Off-Cycle Interns Program

2023

# AGENDA

Relative Referencing

Absolute Referencing

Naming cells

Naming ranges

Exercise

# RELATIVE REFERENCING

- Each cell in Excel has a name in the 'ColumnRow' format.
  - Cell B10 is the cell in Column B / Row 10.
- By default the reference style in a cell is a **relative reference**.
- That means if you copy that cell to another cell, the references will move accordingly.

	A	B	C	D
1	Input	100	200	300
2	Formula	1000	2000	=D1*10

# ABSOLUTE REFERENCING


With **absolute referencing**, you can fix the reference to a specific column, row or both using the '\$' sign.

Assign absolute cell references in three ways:

- $\$A\$1 \rightarrow \$\text{Column}\$ \text{Row}$  = both the column (A) and row (1) are fixed.
- $\$A1 \rightarrow \$\text{Column}\text{Row}$  = only the column (A) is fixed.
- $A\$1 \rightarrow \text{Column}\$ \text{Row}$  = only the row (1) is fixed.
- When in a cell, use **F4** as the shortcut to quickly toggle between the different reference styles.

# ABSOLUTE REFERENCING EXAMPLE

Fix column A and row 7




6		Price per unit		
7	# of units sold	10	20	30
8	100	1,000	2,000	3,000
9	1,000	10,000	20,000	30,000
10	10,000	100,000	200,000	= $\$A10 * D\$7$

Incorrect referencing is used.



# NAMING CELLS

Type a name for the cell into the **Name** box and press **Enter** to apply.



sales_fee			×	✓	<i>fx</i>	5%
	A	B				
1	Sales fee	5.00%				
2						
3	# of units sold	Sales fees				
4	100					
5	1,000					
6	10,000					

# NAMING CELLS

SUM			=A6*sales_fee		
	A		B		
1	Sales fee		5.00%		
2					
3	# of units sold		Sales fees		
4	100		5		
5	1,000		50		
6	10,000		=A6*sales_fee		

A named cell will automatically be an **absolute reference**.



# NAMING RANGES

B21:D21 = price\_per\_unit

price_per_unit				
	A	B	C	
20		Price per unit		
21	# of units sold	10	20	30
22	100			
23	1,000			
24	10,000			

A22:A24 = units\_sold




# NAMING RANGES

B22

</

# NAMING RANGES

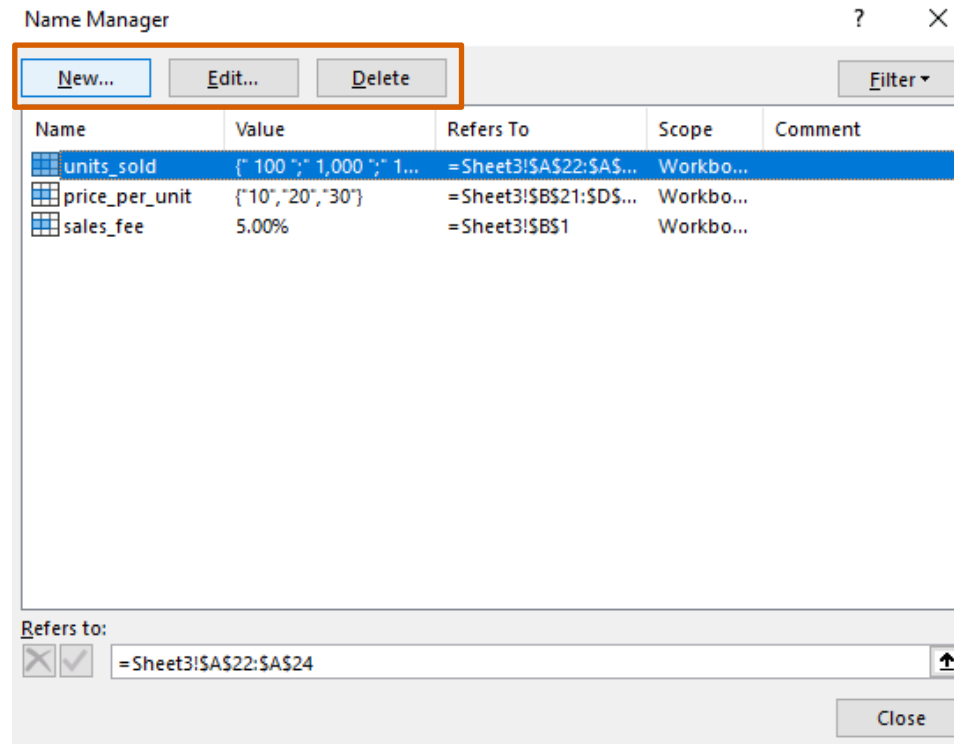
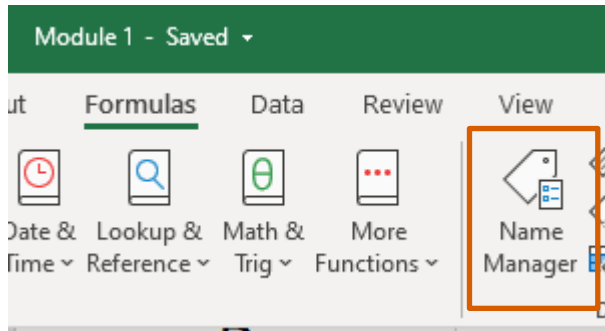
C23					
	A	B	C	D	E
20		Price per unit			
21	# of units sold	10	20	30	
22	100	1,000			
23	1,000		20,000		
24	10,000				



Use the @ symbol in front of the reference to only calculate the value in one particular cell.

# NAME MANAGER

- Any changes to cell and range references need to be made in the **Name Manager**
  - You can not override the name by typing the Name box.
- Access the Name Manager via Formulas / Name Manager



Or simply use **CTRL + F3** as a shortcut!

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