BATCH : BATCH 150 DATA SCIENCE

LESSON : GOOGLE SHEETS

DATE : 24.03.2023

SUBJECT : FUNCTIONS

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FUNCTIONS

Google Sheets

FUNCTIONS

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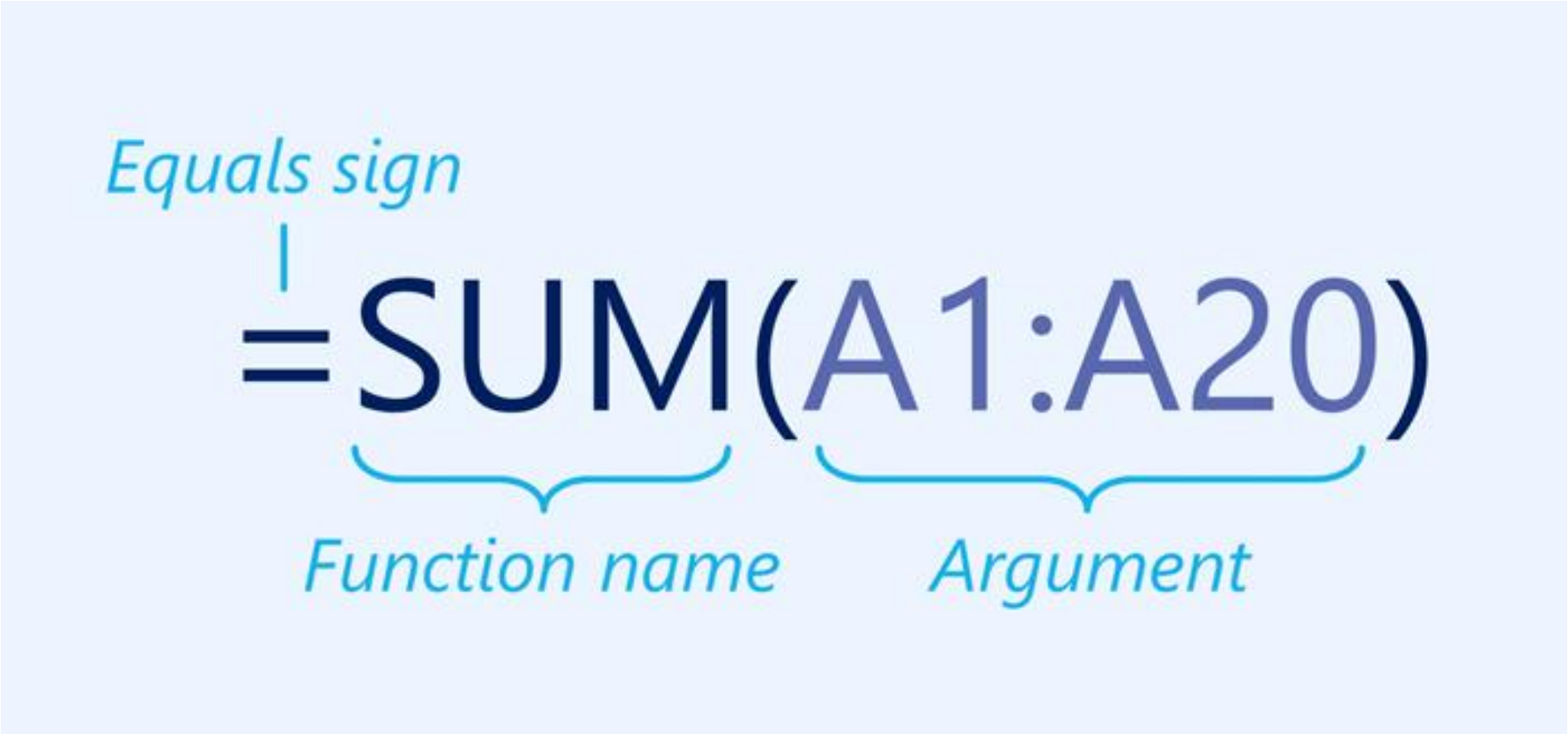

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FUNCTIONS

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=AVERAGE(B1:B9)

	A	B	C
1		1	
2		4	
3		5	
4		6	
5		8	
6		2	
7		3	
8		5	
9		6	
10		=AVERAGE(B1:B9)	
11			
12			

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FUNCTIONS

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=SUM(A1:A3,C1:C2,E1)

	A	B	C	D	E
1	4		6		20
2	8		10		
3	12				
4					
5	=SUM(A1:A3,C1:C2,E1)				
6					

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CREATING A FUNCTION

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=SUM(D3:D12)

	A	B	C	D
2	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
3	Tomatoes (case of 12)	3	$17.44	$52.32
4	Black Beans (case of 10)	5	$20.14	$100.70
5	All Purpose Flour (50 lb.)	5	$14.05	$70.25
6	Corn Meal/Maza (25 lb.)	5	$18.69	$93.45
7	Brown Rice (25 lb.)	5	$10.99	$54.95
8	Lime Juice (1 gallon)	5	$11.99	$59.95
9	Tomato Juice (case of 10)	3	$19.49	$58.47
10	Hot Sauce (1 gallon)	8	$7.35	$58.80
11	Salsa, Medium (1 gallon)	12	$8.47	$101.64
12	Olive Oil (2.5 gallon)	4	$28.69	$114.76
13			TOTAL	=SUM(D3:D12)
14				

Comme

SUM
AVERAGE
COUNT
MAX
MIN
More functions...

E
ORDERED
12-C
12-C
12-C
12-Oct

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BASIC FUNCTIONS

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SUM

AVERAGE

PRODUCT

QUOTIENT

COUNT

COUNTA

MIN

MAX

UNIQUE

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SUM

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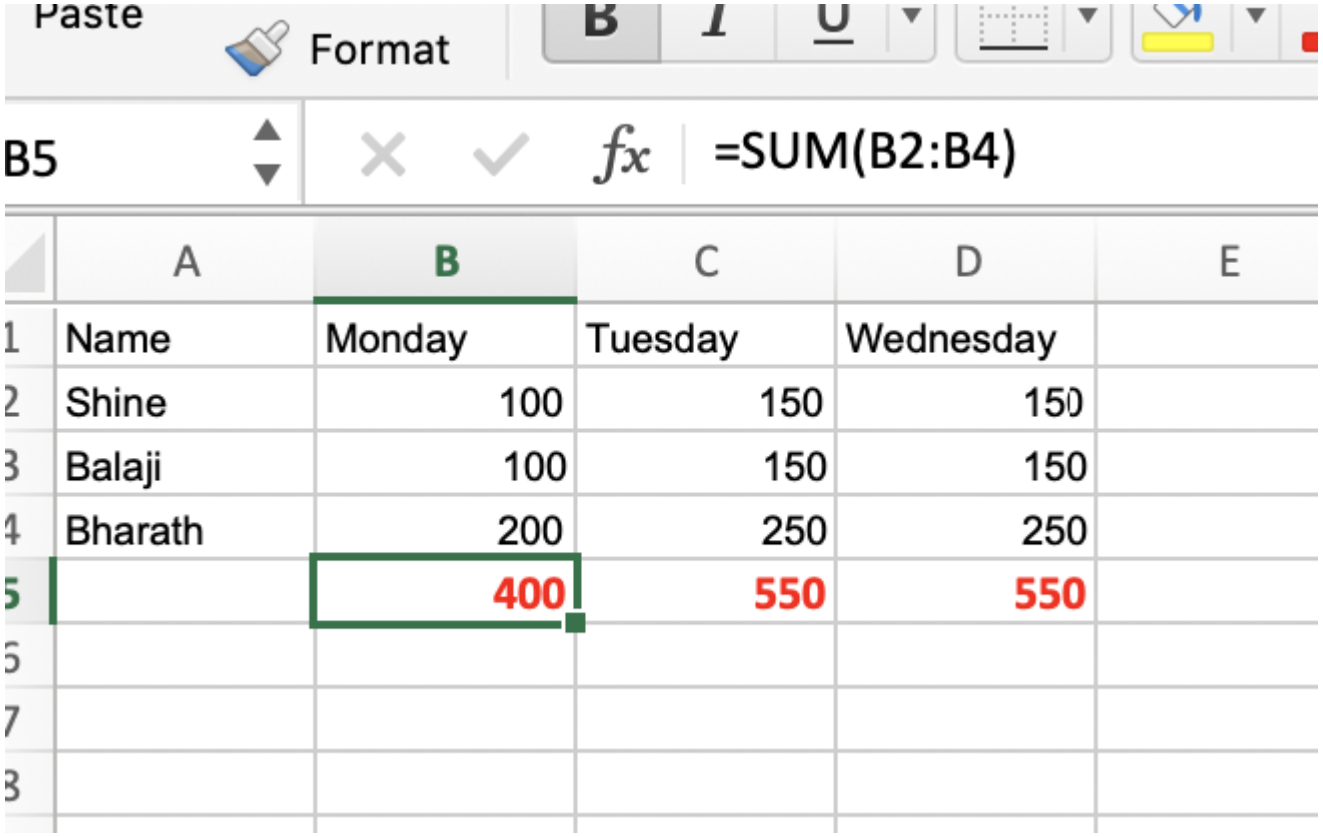

	A	B	C	D	E
1	Name	Monday	Tuesday	Wednesday	
2	Shine	100	150	150	
3	Balaji	100	150	150	
4	Bharath	200	250	250	
5		400	550	550	
6					
7					
8					

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PRODUCT

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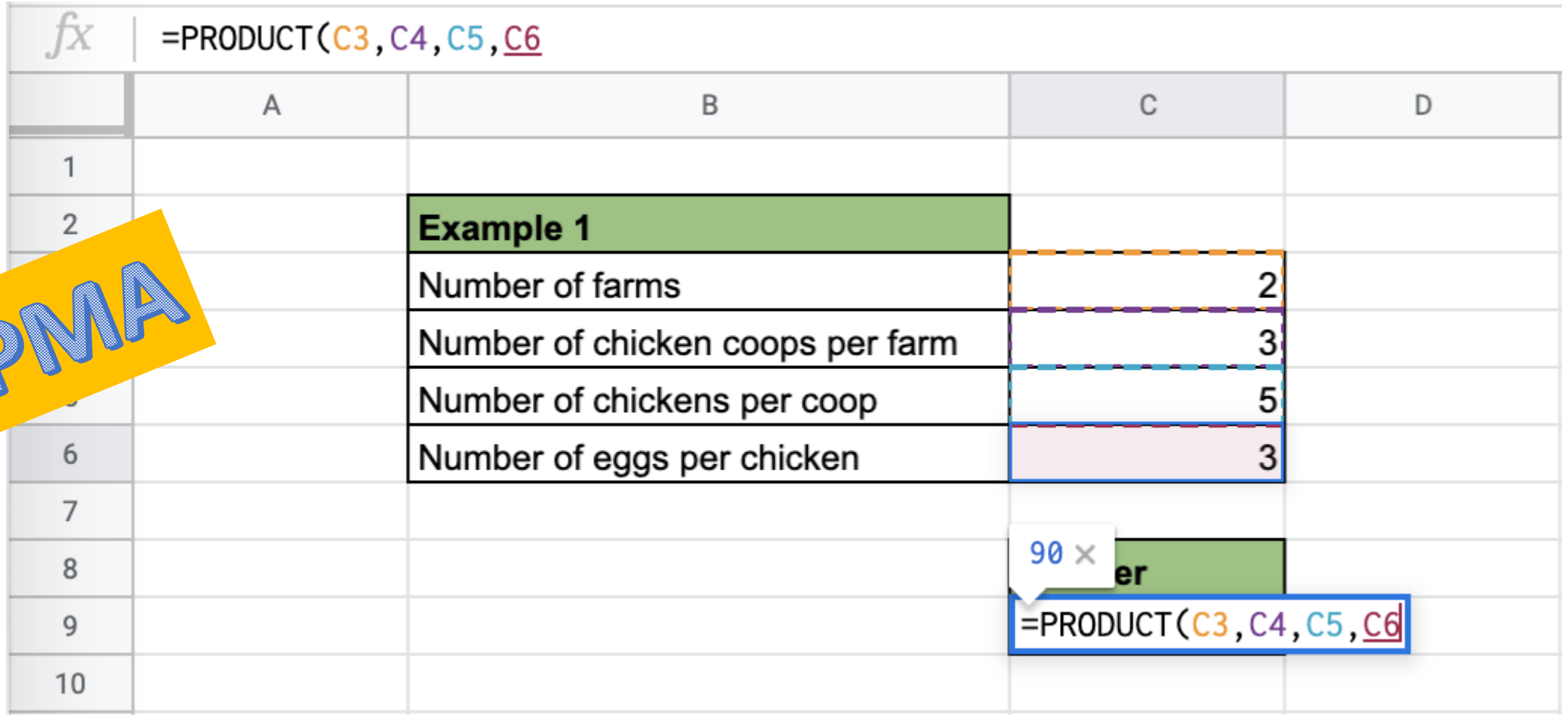

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MINUS

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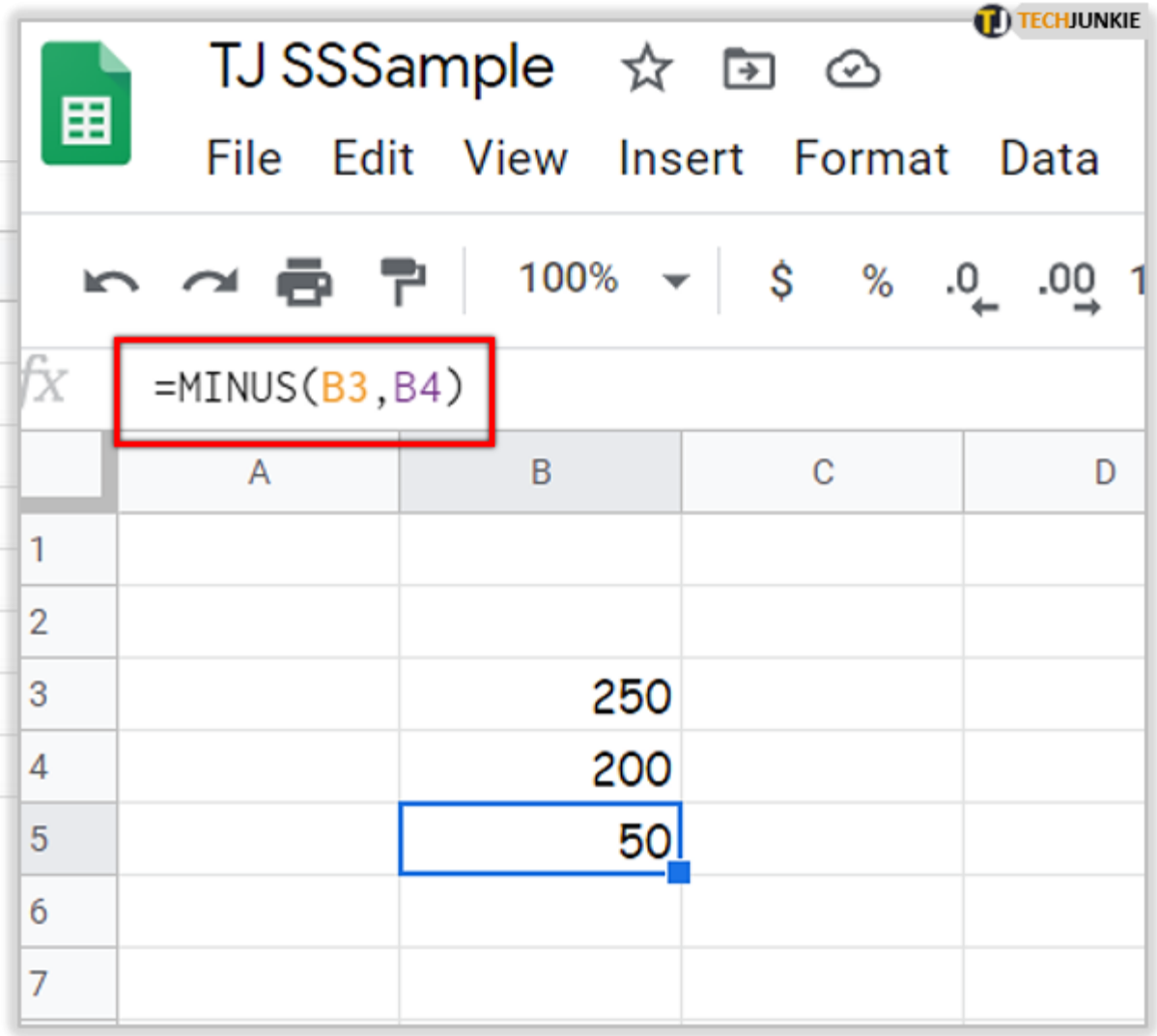
=A2-B2 ← formula bar

	A	B	C
1	Income	Expenditure	Balance
2	7390.2	325	7065.2
3	78925.5	1313	
4	98436	3525	
5	2492	1345	
6	2462	213	
7			
8			

result

ÇIKARMA



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DIVIDE

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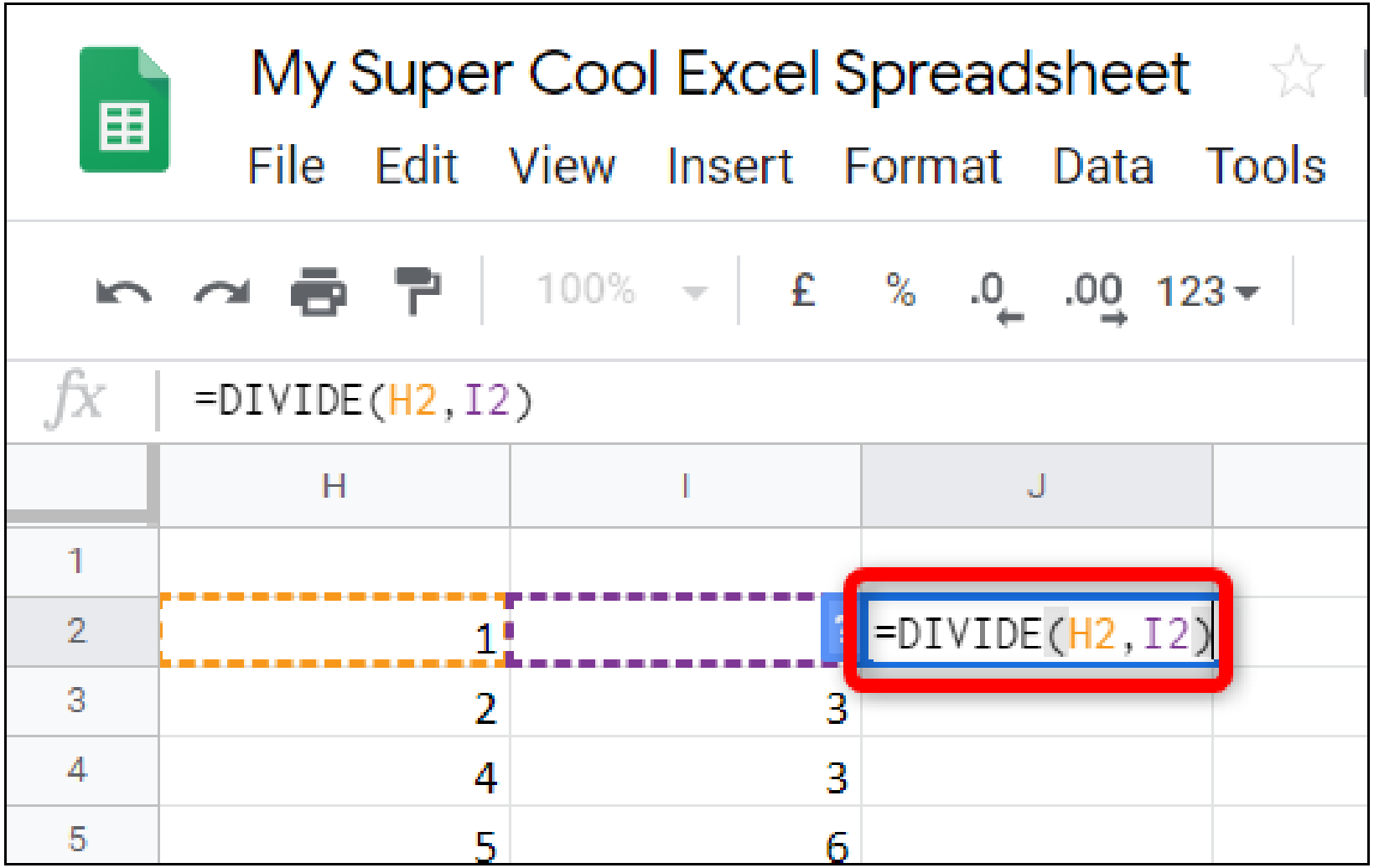
BÖLME



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AVERAGE

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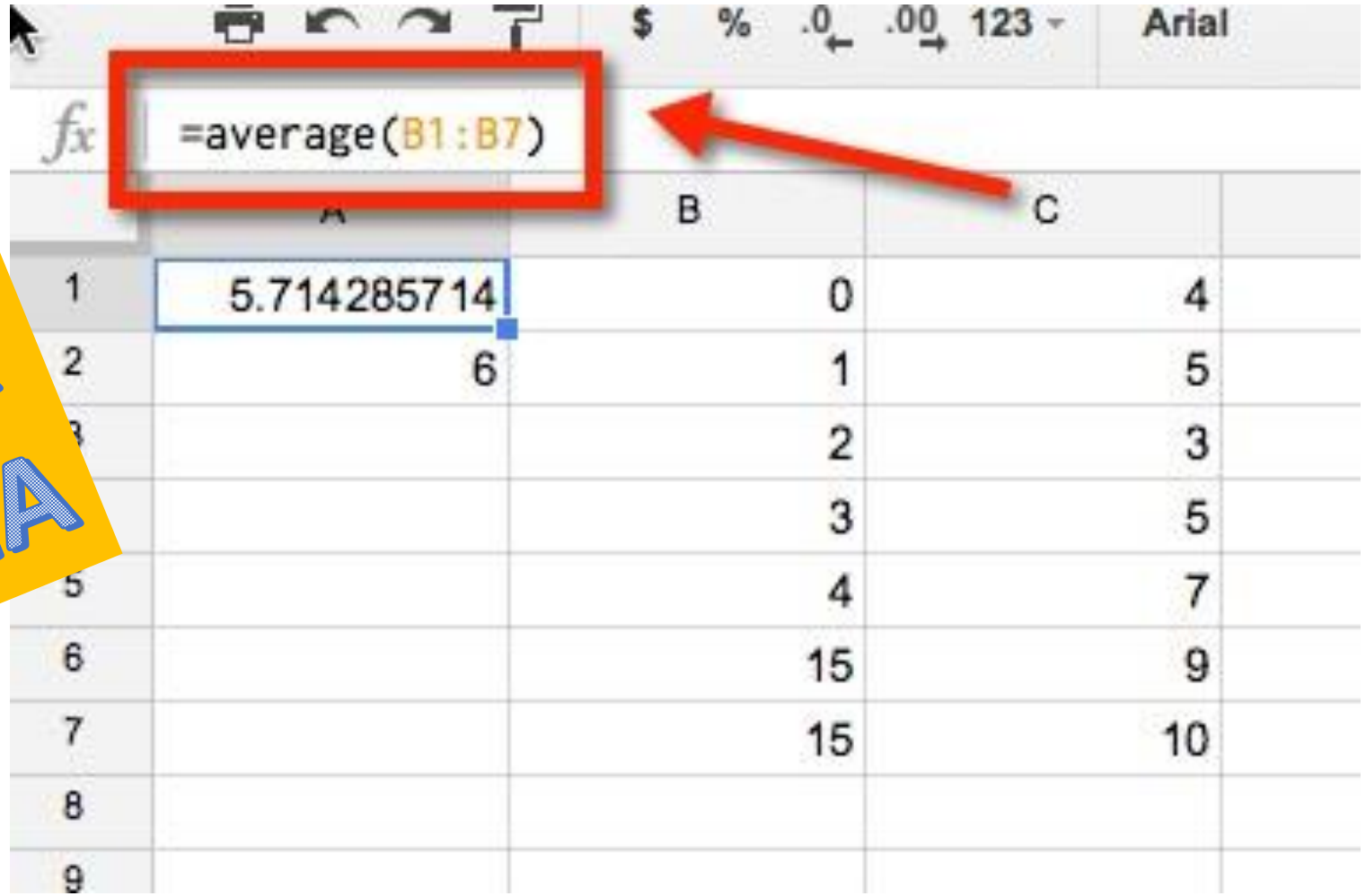
ARİTMATİK ORTALAMA



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COUNT

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COUNT

Returns the number of numeric values in a dataset.

SAYISAL DEĞERLER

COUNT

General Usage | COUNTA

value
Google
7
1/31/2012
$100.00

Result	Formula
3	=COUNT(A2:A6)

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COUNTA

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COUNTA

Returns the number of values in a dataset.

BOŞ OLMAYAN HER ŞEY

	A	B
fx	=COUNTA(A2:A11)	COUNTA FUNCTION
1	**Customer Name**	TOTAL ORDERED AMOUNT
2	Richie Dyer	$4,324.00
3	Craig Zamora	$865.00
4		
5		
6	Jennie Mayer	$978.00
7		
8	Ziba Barber	$4,324.00
9		
10	Sahib Mckinney	$320.00
11	Juliet Rodrigues	$7,634.00
12		
13		no. of cells that are not
14	6	blank

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MIN

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MIN

Returns the minimum value in a numeric dataset.

MIN : General Usage

number	
3	
5	
-1	
4	
2	

Result	Formula
-1	=MIN(A2:A6)

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MAX

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MAX

Returns the maximum value in a numeric dataset.

MAX : General Usage

number	
3	
5	
-1	
4	
2	
Result	**Formula**
5	=MAX(A2:A6)

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QUOTIENT

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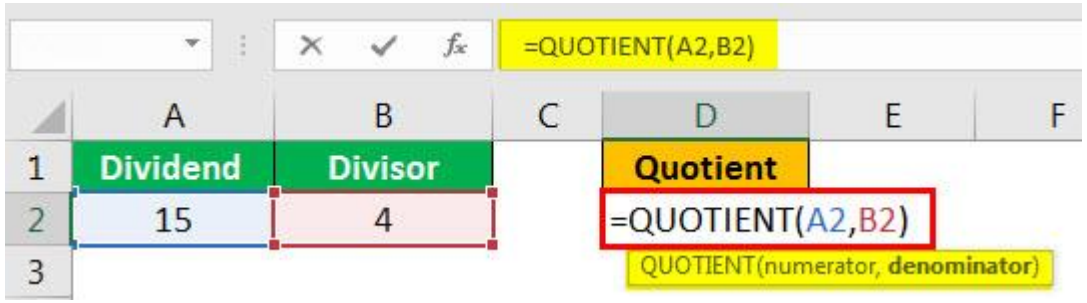
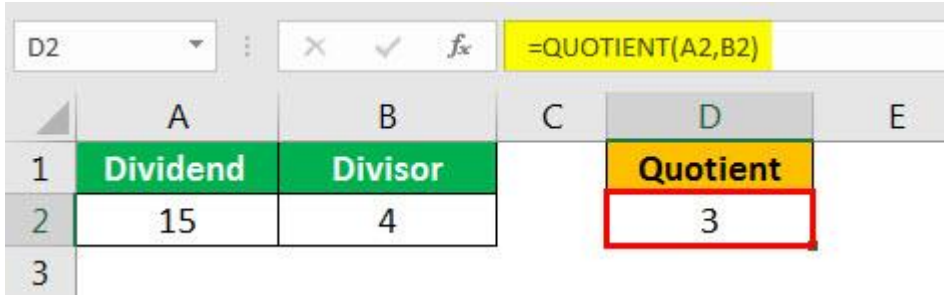
The QUOTIENT function returns the integer portion of division without the remainder. ...





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UNIQUE

=UNIQUE(A2:A15)

	A	B	C	D	E	F
1	**Name**	**Age**	**Result #1**	**Formula Used**		
2	David	21	David	=Unique(A2:A15)		
3	Eric	23	Eric			
4	Brett	19	Brett			
5	Francis	22	Francis			
6	Angela	25	Angela			
7	Caroline	27	Caroline			
8	Charlie	20	Charlie			
9	Alfred	23	Alfred			
10	David	21	Dennis			
11	Dennis	21	Bob			
12	Bob	24	Evan			
13	Caroline	28				
14	Evan	26				
15	Eric	25				
16						
17						
18						
19						

UNIQUE (Multiple Columns)

=unique(A2:B15)

	A	B	C	D	E	F
1	**Name**	**Age**	**Result #2**		**Formula Used**	
2	David	21	David	21	=Unique(A2:B15)	
3	Eric	23	Eric	23		
4	Brett	19	Brett	19		
5	Francis	22	Francis	22		
6	Angela	25	Angela	25		
7	Caroline	27	Caroline	27		
8	Charlie	20	Charlie	20		
9	Alfred	23	Alfred	23		
10	David	21	Dennis	21		
11	Dennis	21	Bob	24		
12	Bob	24	Caroline	28		
13	Caroline	28	Evan	26		
14	Evan	26	Eric	25		
15	Eric	25				
16						
17						
18						
19						

IF CONDITIONS

IF CONDITIONS

Logical Operators in Excel

Operator Symbol	Operator Name	Description
=	Equal to	Compares One Value to Other Value
>	Greater Than	Tests whether the value is greater than certain value or not
<	Less Than	Tests whether the value is less than certain value or not
>=	Greater Than or Equal To	Tests whether the value is greater than or equal to certain value or not
<=	Less Than or Equal To	Tests whether the value is less than or equal to certain value or not
<>	Not Equal To	Tests whether particular value is not equal to certain value

IF CONDITIONS

IF Functions

=IF(logical_expression, true_value, false_value)

A spreadsheet calculates the value of an IF function by first evaluating the logical expression.

If the expression is TRUE, then the first value in the function is used.

If the expression is FALSE, then the second value in the function is used.

= IF (Cell C2 >= Cell D2, "Yes it is", "No it isn't")

i.e.

When C2 is 9 and D2 is 7, the result = "Yes it is"

When C2 is 3 and D2 is 5, the result = "No it isn't"

IF Function

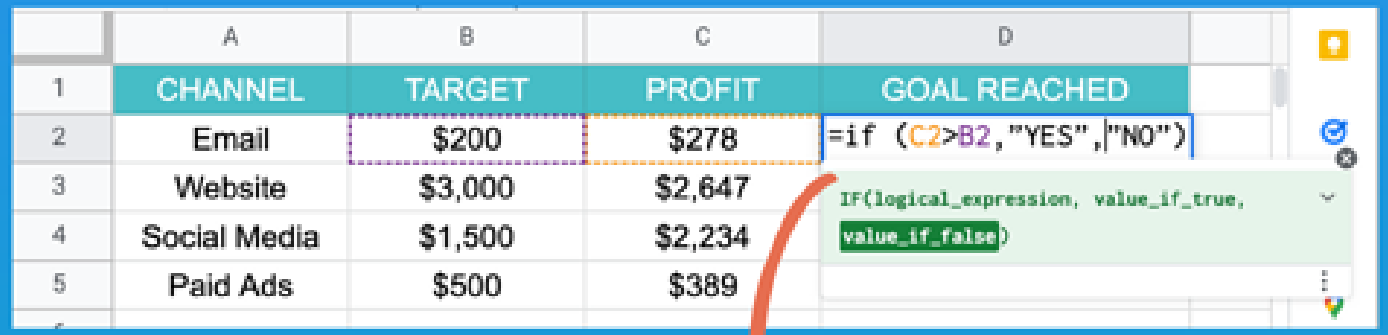
=IF(logical_expression, value_if_true, value_if_false)

IF CONDITIONS

How to enter the IF function:

	Logical expression	Value IF TRUE	Value IF FALSE
=IF	(A2>0,	1,	0)

IF CONDITIONS




```
=if(C2>B2,"YES”,”NO”)
```

Condition with value
C2 is higher than B2

If return TRUE,
change return value as "YES"

If return FALSE,
change return value as "NO"

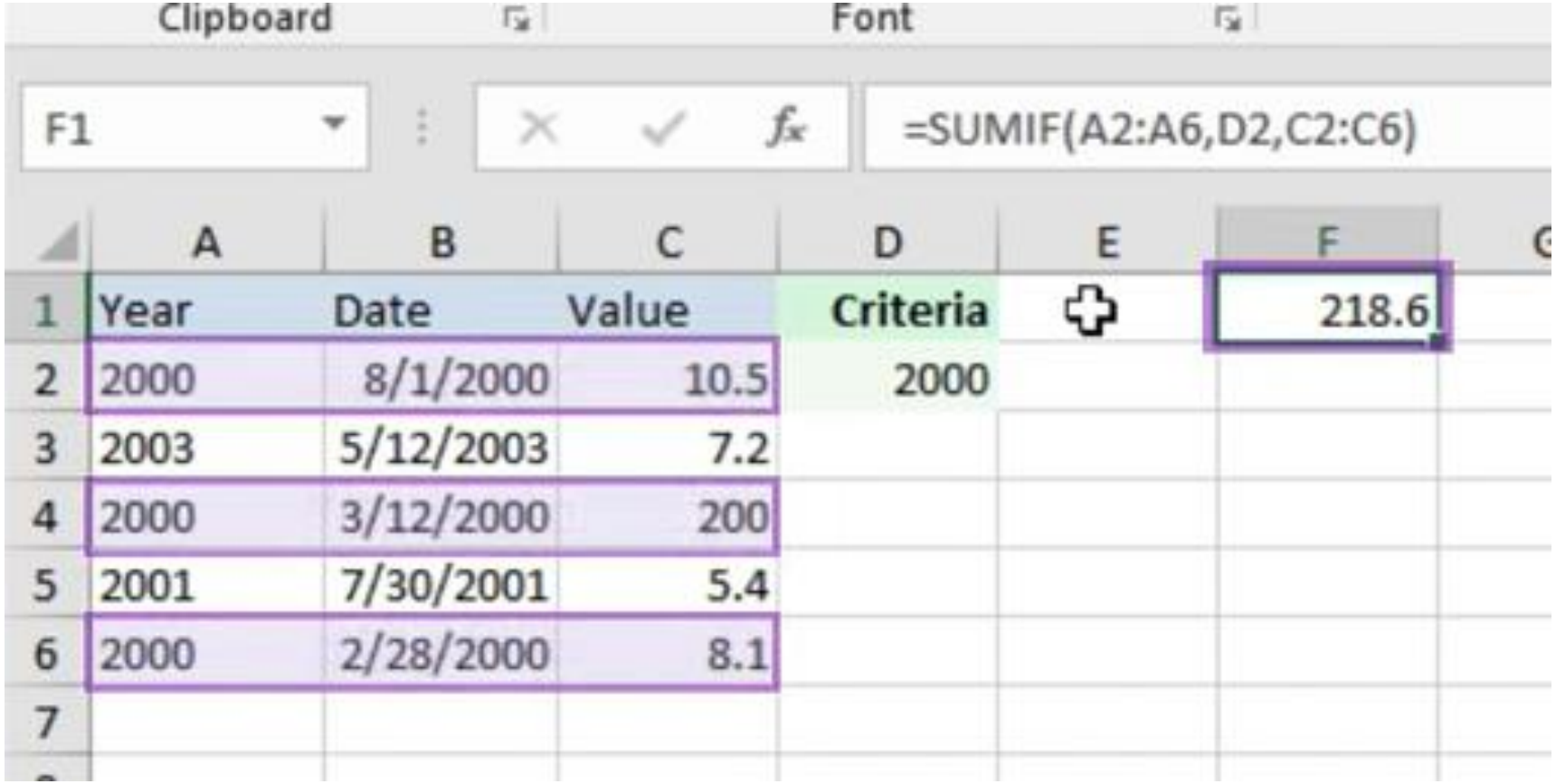
IFS CONDITIONS

C2 | fx | =IFS(B2<50,"Fail",B2<80,"Pass",B2>=80,"Pass with distinction")

	A	B	C
1	**Student**	**Result**	**Grade**
2	Bob	70	Pass
3	Jenny	90	Pass with distinction
4	Malik	86	Pass with distinction
5	Sue	49	Fail
6			

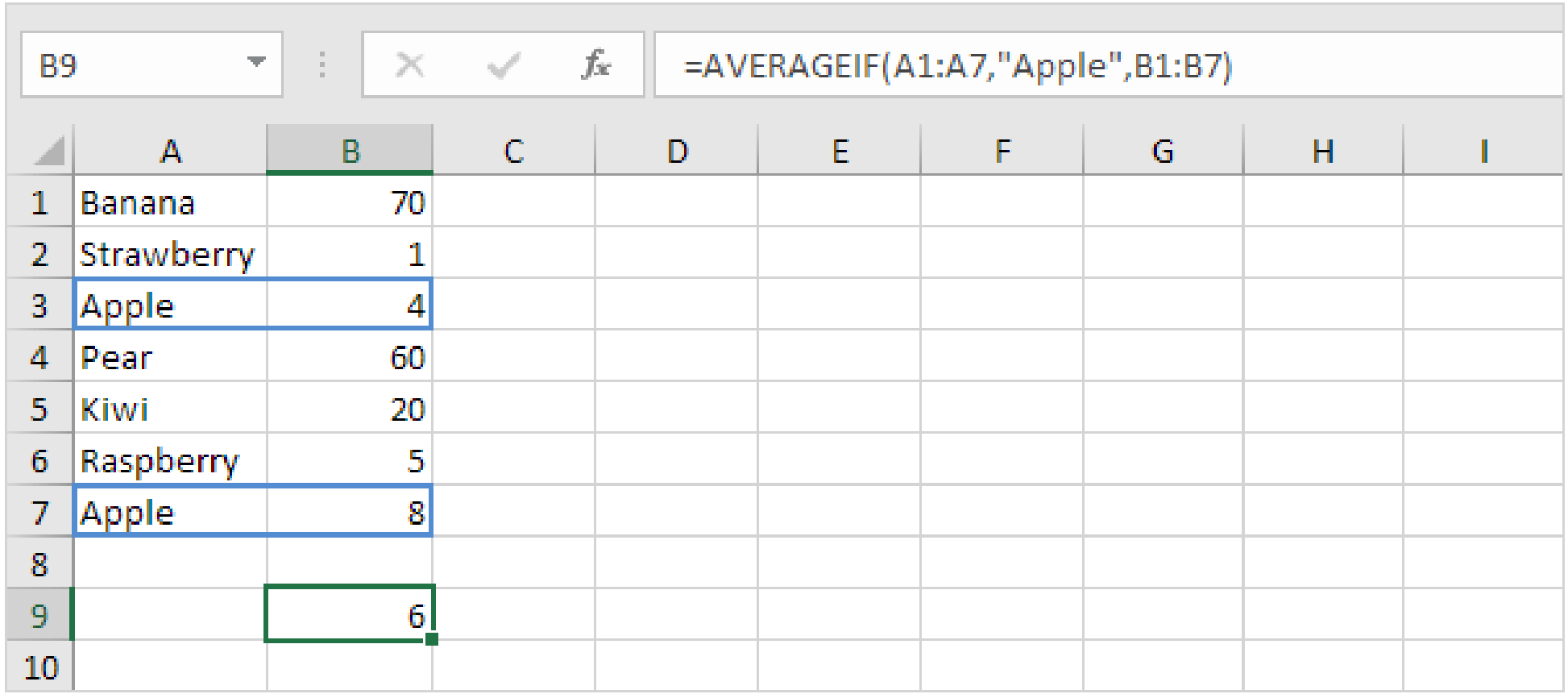
IFS CONDITIONS

SUMIF



IFS CONDITIONS

AVERAGEIF



	A	B	C	D	E	F	G	H	I
1	Banana	70							
2	Strawberry	1							
3	Apple	4							
4	Pear	60							
5	Kiwi	20							
6	Raspberry	5							
7	Apple	8							
8									
9		6							
10									

IFS CONDITIONS

COUNTIF

G3

=COUNTIF($B$2:$B$11,"<>Joe")

	A	B	C	F	G
1	Product	Sales Rep	Quantity		
2	Product A	Joe	9		
3	Product B	Jane	9		
4	Product C	Martha	10		
5	Product D	Joe	4		
6	Product E	Jane	11		
7	Product F	Joe	3		
8	Product G	Charlie	4		
9	Product H	Bob	7		
10	Product I	Tom	9		
11	Product J	Bob	5		
12					

Result
7