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Digital Area for Networking
Teachers and Educators



Co-funded by
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Data Analysis Using Formulas

Array Formulas

Week 5



Exercise 1

On the **Exercise 1** sheet, calculate the multiplication table using the array formula.

	A	B	C	D	E	F	G	H	I	J	K
1		1	2	3	4	5	6	7	8	9	10
2	1	1	2	3	4	5	6	7	8	9	10
3	2	2	4	6	8	10	12	14	16	18	20
4	3	3	6	9	12	15	18	21	24	27	30
5	4	4	8	12	16	20	24	28	32	36	40
6	5	5	10	15	20	25	30	35	40	45	50
7	6	6	12	18	24	30	36	42	48	54	60
8	7	7	14	21	28	35	42	49	56	63	70
9	8	8	16	24	32	40	48	56	64	72	80
10	9	9	18	27	36	45	54	63	72	81	90
11	10	10	20	30	40	50	60	70	80	90	100



Exercise 2

On the **Exercise 2** sheet, calculate the required calculations in H and I columns using the array formula.

	A	B	C	D	E	F	G	H	I
1	Date	Company	Product	Amount	Paid		Company	Sum of amounts per company	Number of occurrences of the companies
2	23.09.2017	IMPALA	X	10000	yes		BRICKMAT	33770	5
3	24.09.2017	IMPALA	Z	9450	yes		FORTISIMO	53290	5
4	25.09.2017	FORTISIMO	Y	11360	yes		IMPALA	61650	7
5	26.09.2017	BRICKMAT	Y	3250	no		ZETEN	8060	2
6	27.09.2017	BRICKMAT	Y	19580	no				
7	28.09.2017	IMPALA	X	7650	no				
8	29.09.2017	IMPALA	Y	17450	no				
9	30.09.2017	FORTISIMO	Z	21500	no				
10	01.10.2017	FORTISIMO	X	6540	no				
11	02.10.2017	FORTISIMO	Z	3990	yes				
12	03.10.2017	BRICKMAT	X	5700	no				
13	04.10.2017	BRICKMAT	Z	770	no				
14	05.10.2017	BRICKMAT	Y	4470	no				
15	06.10.2017	IMPALA	Y	6200	no				
16	07.10.2017	IMPALA	Z	2340	no				
17	08.10.2017	ZETEN	Z	3500	yes				
18	09.10.2017	ZETEN	X	4560	yes				
19	10.10.2017	IMPALA	X	8560	yes				
20	11.10.2017	FORTISIMO	X	9900	no				



Exercise 3

On the **Exercise 3** sheet, calculate the total amounts per companies and products in H2:J5 using the array formula.

	A	B	C	D	E	F	G	H	I	J
1	Date	Company	Product	Amount	Paid			X	Y	Z
2	23.09.2017	IMPALA	X	10000	yes		BRICKMAT	5700	27300	770
3	24.09.2017	IMPALA	Z	9450	yes		FORTISIMO	16440	11360	25490
4	25.09.2017	FORTISIMO	Y	11360	yes		IMPALA	26210	23650	11790
5	26.09.2017	BRICKMAT	Y	3250	no		ZETEN	4560	0	3500
6	27.09.2017	BRICKMAT	Y	19580	no					
7	28.09.2017	IMPALA	X	7650	no					
8	29.09.2017	IMPALA	Y	17450	no					
9	30.09.2017	FORTISIMO	Z	21500	no					
10	01.10.2017	FORTISIMO	X	6540	no					
11	02.10.2017	FORTISIMO	Z	3990	yes					
12	03.10.2017	BRICKMAT	X	5700	no					
13	04.10.2017	BRICKMAT	Z	770	no					
14	05.10.2017	BRICKMAT	Y	4470	no					
15	06.10.2017	IMPALA	Y	6200	no					
16	07.10.2017	IMPALA	Z	2340	no					
17	08.10.2017	ZETEN	Z	3500	yes					
18	09.10.2017	ZETEN	X	4560	yes					
19	10.10.2017	IMPALA	X	8560	yes					
20	11.10.2017	FORTISIMO	X	9900	no					



Exercise 4

On the **Exercise 4** sheet, calculate the required calculations in H and I columns using the array formula and basic functions (i.e. without using SUMIF and COUNTIF functions).

	A	B	C	D	E	F	G	H	I
1	Date	Company	Product	Amount	Paid		Company	Sum of amounts per company	Number of occurrences of the companies
2	23.09.2017	IMPALA	X	10000	yes		BRICKMAT	33770	5
3	24.09.2017	IMPALA	Z	9450	yes		FORTISIMO	53290	5
4	25.09.2017	FORTISIMO	Y	11360	yes		IMPALA	61650	7
5	26.09.2017	BRICKMAT	Y	3250	no		ZETEN	8060	2
6	27.09.2017	BRICKMAT	Y	19580	no				
7	28.09.2017	IMPALA	X	7650	no				
8	29.09.2017	IMPALA	Y	17450	no				
9	30.09.2017	FORTISIMO	Z	21500	no				
10	01.10.2017	FORTISIMO	X	6540	no				
11	02.10.2017	FORTISIMO	Z	3990	yes				
12	03.10.2017	BRICKMAT	X	5700	no				
13	04.10.2017	BRICKMAT	Z	770	no				
14	05.10.2017	BRICKMAT	Y	4470	no				
15	06.10.2017	IMPALA	Y	6200	no				
16	07.10.2017	IMPALA	Z	2340	no				
17	08.10.2017	ZETEN	Z	3500	yes				
18	09.10.2017	ZETEN	X	4560	yes				
19	10.10.2017	IMPALA	X	8560	yes				
20	11.10.2017	FORTISIMO	X	9900	no				



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