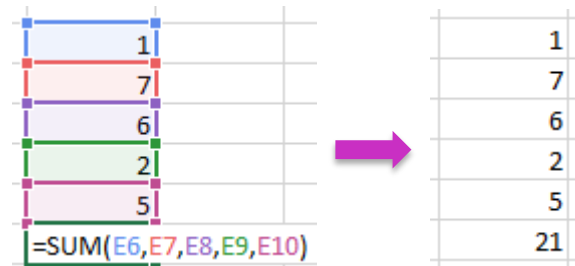# Functions you must know – Excel 2016

Excel functions help us process data more effectively and efficiently. Here are some of the top must-know Excel functions!

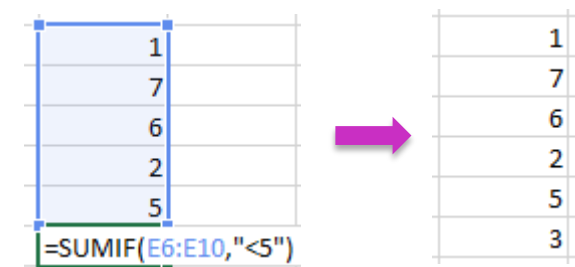## SUM
- Adds values
- *=SUM (number1, [number2], [number3], …)*

```
1
7
6
2
5
=SUM(E6,E7,E8,E9,E10)
```
→
```
1
7
6
2
5
21
```

SUMIF
- Adds values only when they fulfil specified criterion
- *=SUMIF (range, criteria, [sum_range])*

```
1
7
6
2
5
=SUMIF(E6:E10,"<5")
```
→
```
1
7
6
2
5
3
```
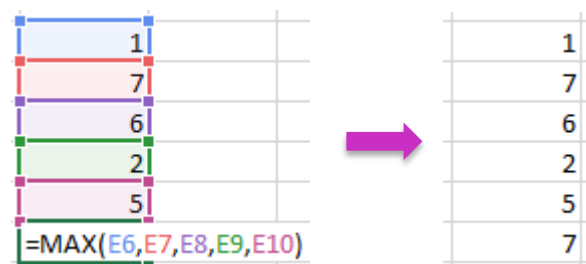
AVERAGE
- Returns the average of specified range of values
- *=AVERAGE (number1, [number2], …)*

```
1
7
6
2
5
=AVERAGE(E6,E7,E8,E9,E10)
```
→
```
1
7
6
2
5
4.2
```

MAX
- Returns the highest value of a specified range of values
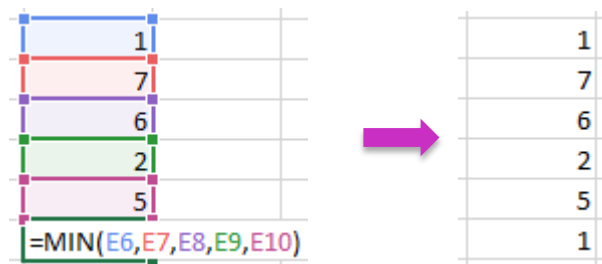- *=MAX (number1, [number2], …)*

```
1
7
6
2
5
=MAX(E6,E7,E8,E9,E10)
```
→
```
1
7
6
2
5
7
```

Functions you must know – Excel 2016
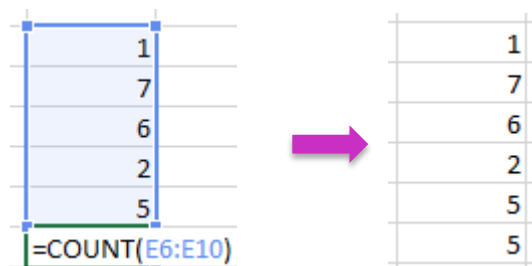
MIN
- Returns the lowest value of a specified range of values
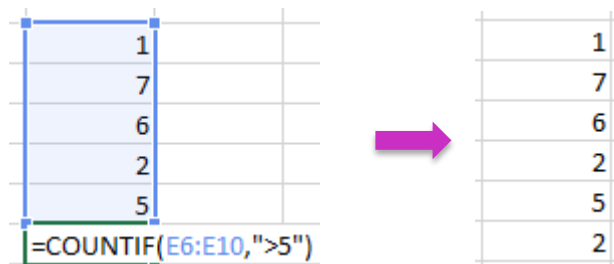- *=MIN (number1, [number2], …)*

1
7
6
2
5
=MIN(E6,E7,E8,E9,E10)

➡

1
7
6
2
5
1

COUNT
- Counts the number of cells within a specified range
- *=COUNT (value1, [value2], …)*

1
7
6
2
5
=COUNT(E6:E10)

➡

1
7
6
2
5
5

COUNTIF
- Counts the number of cells within a specified range only when they fulfil specified criterion
- *=COUNTIF (range, criteria)*

1
7
6
2
5
=COUNTIF(E6:E10,">5")

➡

1
7
6
2
5
2

COUNTA
- Counts the number of cells within a specified range, less empty cells
- *=COUNTA (value1, [value2], …)*

1
6
5
=COUNTA(E22:E26)

➡

1
6
5
3

CONCATENATE
- Joins text strings together and returns a conjoined text
- *=CONCATENATE (text1, text2, [text3], …)*

1
7
6
2
5
=CONCATENATE(E6,E7,E8,E9,E10)

➡

1
7
6
2
5
17625

Functions you must know – Excel 2016

TODAY
- Returns the current date
- *=TODAY ()*

`=TODAY()` ➡ 17/7/2018

NOW
- Returns the current date and time (display depends on cell formatting options)
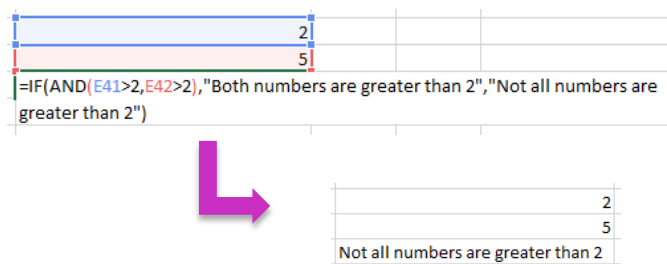- *=NOW ()*

`=NOW()` ➡ Tuesday, 17 July 2018

IF
- Conducts a logical test and returns a specified value if the result is TRUE and another specified value if the result is FALSE
- *=IF (logical_test, [value_if_true], [value_if_false])*

	1
	7
	6
	2
	5

`=IF(E7>5,"E7 is greater than 5","E7 is not greater than 5")`

	1
	7
	6
	2
	5
E7 is greater than 5	
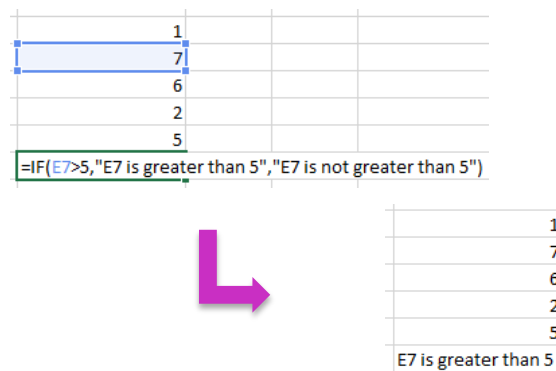
AND
- Conducts multiple logical tests and requires all conditions to be true to return TRUE.
- *=AND (logical1, [logical2], ...)*

	2
	5

`=IF(AND(E41>2,E42>2),"Both numbers are greater than 2","Not all numbers are greater than 2")`

	2
	5
Not all numbers are greater than 2	

OR
- Conducts multiple logical tests and requires at least one of the conditions to be true to return TRUE.
- *=OR (logical1, [logical2], ...)*

	2
	5

`=IF(OR(E41>2,E42>2),"At least one number is greater than 2","None of our numbers are greater than 2")`

	2
	5
At least one number is greater than 2	