

# Practical work 1

## Statistical Functions

This section gives an overview of some very useful statistical functions in Excel.

### Average

To calculate the average of a group of numbers, use the AVERAGE function.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	5.6															
4																

### Averageif

To average cells based on one criteria, use the AVERAGEIF function. For example, to calculate the average excluding zeros.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	6.46															
4																

### Median

To find the median (or middle number), use the MEDIAN function.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	6															
4																

Check:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	0	3	4	5	5	6	6	7	7	8	8	8	8	9	

## Mode

To find the most frequently occurring number, use the MODE function.

A3		=MODE(A1:O1)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	8															
4																

## Standard Deviation

To calculate the standard deviation, use the STEDV function.

A3		=STDEV(A1:O1)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	2.82															
4																

## Min

To find the minimum value, use the MIN function.

A3		=MIN(A1:O1)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	0															
4																

## Max

To find the maximum value, use the MAX function.

A3		=MAX(A1:O1)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	9															
4																

## Large

To find the third largest number, use the following LARGE function.

A3		=LARGE(A1:O1,3)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	8															
4																

Check:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	0	3	4	5	5	6	6	7	7	8	8	8	8	9	

## Small

To find the second smallest number, use the following SMALL function.

A3		=SMALL(A1:O1,2)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	0															
4																

Check:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	0	3	4	5	5	6	6	7	7	8	8	8	8	9	

Ex: Apply the above in series 2.