Lesson 2: Using Excel functions for Descriptive Statistics

Starting on the next page are examples of how to find descriptive statistics using COUNT, SUM, AVERAGE, MAX, MIN, MODE, and MEDIAN.

Once you have the MAX and MIN you can determine the range by taking the difference between the MAX and MIN values.

A word of caution about the MODE: It only returns one mode if more than one is present. So, if you have two or more modes it only returns the first one it encounters in the list of data. If there is no mode in the data MODE returns the value #N/A.

COUNT – displays the number of items in a group (or array) of cells Format: **=COUNT**(*starting cell* : *ending cell*)

Choose a cell to type the function (e.g., C2 in the example below) (I've typed a description in the next cell, D2.)



 $\ensuremath{\textbf{SUM}}\xspace$ – adds the numbers in a group (or array) of cells

Format: **=SUM(***starting cell* **:** *ending cell***)**

Choose a cell to type the function (e.g., C3 in the example below) (I've typed a description in the next cell, D3.)

	SUM	-	(= × <	<i>f</i> ∗ =sun	n(A1:A7)
	А	В	С	D	E
1	12				
2	14		7	count	
3	9		=sum(A1:	47)	
4	8				
5	11				
6	9				
7	10				
8	спрочаго	Cal.		1 UIIL	
	C3		. (=	f _≭ =SU	M(A1:A7)
	C3 A	в	c C	fx <mark>=SUI</mark>	M <mark>(A1:A7</mark>) E
1	C3 A 12	В	C C	f∗ =sui	M <mark>(A1:A7</mark>) E
12	C3 A 12 14	В	с С 7	f∗ =SUI	M <mark>(A1:A7</mark>) E
1 2 3	C3 A 12 14 9	B	C 7 73	f∗ =SUI D count sum	M <mark>(A1:A7)</mark> E
1 2 3 4	C3 A 12 14 9 8	B	C C 7 73	f∗ =SUI Count sum	M <mark>(A1:A7</mark>) E
1 2 3 4 5	C3 A 12 14 9 8 11	В	C 7 73	f* =SUI	<mark>M(A1:A7)</mark> E
1 2 3 4 5 6	C3 A 12 14 9 8 11 9	В	C 7 73	fr =SUI	<mark>M(A1:A7)</mark> E
1 2 3 4 5 6 7	C3 A 12 14 9 8 11 9 10	В	C 7 73	f* =SUI Count sum	E E

AVERAGE – Calculates the average of the numbers in a group (or array) of cells Format: **=AVERAGE**(*starting cell* : *ending cell*)

Choose a cell to type the function (e.g., C4 in the example below) (I've typed a description in the next cell, D4.)



MAX – displays the largest number in a group (or array) of cells Format: **=MAX**(*starting cell* : *ending cell*)

> Choose a cell to type the function (e.g., C5 in the example below) (I've typed a description in the next cell, D5.)

	SUM $ -$ X $ f_r$ $-$ max(A1·A7)							
	SUIVI	•		J≭ <mark>=ma</mark>	X(A1.A7)			
	Α	В	С	D	E			
1	12							
2	14		7	count				
3	9		73	sum				
4	8		10.42857	average o	or mean			
5	11		=max(A1:/	47)				
6	9							
7	10							
8								
	05		6	e .	AAV/ A4. A 71			
	C5		• (=	f _{sc} =	MAX(A1:A7)			
	C5 A	В	• (= 		MAX(A1:A7)			
1	C5 A 12	В	• (e		MAX(A1:A7)			
1 2	C5 A 12 14	B	• (°	f _∗ = D 7 covint	MAX(A1:A7)			
1 2 3	C5 A 12 14 9	В	• (° C	f _∗ = D 7 count 3 sµm	MAX(A1:A7)			
1 2 3 4	C5 A 12 14 9 8	В	▼ (C C 7 10.4285	f _x =1 D 7 count 3 sum 71 averag	MAX(A1:A7)			
1 2 3 4 5	C5 A 12 14 9 8 8 11	B	• C C 10.4285	f _≪ =I D 7 count 3 sum 7 averag 4 largest	MAX(A1:A7) E e or mean : number			
1 2 3 4 5 6	C5 A 12 14 9 8 11 9	B	• C	f = D 7 count 3 sum 7 averag 4 largest	MAX(A1:A7) E e or mean : number			

MIN – displays the smallest number in a group (or array) of cells

Format: =MIN(starting cell : ending cell)

Choose a cell to type the function (e.g., C6 in the example below) (I've typed a description in the next cell, D6.)

	SUM						
	Α	В	С	D	E		
1	12						
2	14		7	count			
3	9		73	sum			
4	8		10.42857	average o	or mean		
5	11		14	largest nu	umber		
6	9		=min(A1:A	7)			
7	10						
8							
	C6	+	(fx =MIN	(A1:A7)		
	C6 A	■	() C	f _* =MIN	(A1:A7) E		
1	C6 A 12	B	C C	fx =MIN	(A1:A7) E		
1 2	C6 A 12 14	B	С С 7	f _∗ =MIN D covint	(A1:A7) E		
1 2 3	C6 A 12 14 9	B	C 7 73	f <mark>≠ =MIN</mark> D count sum	E		
1 2 3 4	C6 A 12 14 9 8	B	C 7 73 10.42857	f∗ =MIN D count sum average o	E r mean		
1 2 3 4 5	C6 A 12 14 9 8 11	B	C 7 73 10.42857 1	f x =MIN D count sum average o largest nu	E E r mean mber		
1 2 3 4 5 6	C6 A 12 14 9 8 11 9	B	C 7 73 10.42857 1 8	f _x =MIN D count sum average of largest nu smallest n	E r mean mber umber		
1 2 3 4 5 6 7	C6 A 12 14 9 8 11 9 9 10	B	C 7 73 10.42857 1 8	f x =MIN D count sum average o largest nu smallest n	E r mean mber umber		

MODE – displays the number that occurs most often in a group (or array) of cells. If there is no mode #N/A is displayed. If there is more than one mode it displays only the first one it encounters. Format: **=MODE**(*starting cell*: *ending cell*)

Choose a cell to type the function (e.g., C7 in the example below) (I've typed a description in the next cell, D7.)

	SUM → (X ✓ f =mode(A1:A7)					
	А	В	С	D	E	
1	12					
2	14		7	count		
3	9		73	sum		
4	8		10.42857 average or mean			
5	11		14 largest number			
6	9		8 smallest number			
7	10		=mode(A	1:A7)		
-	cubacara				·	
	C7	•	(f∗ =MC	DE(A1:A7)	
	Α	В	С	D	E	
1	12					
2	14		7	court		
3	9		73	sum		
4	8		10.42857	average or mean		
				14 Jargest number		
5	11		14	argest nu	umber	
5 6	11 9		14 8	argest nu smallest i	umber number	

MEDIAN – displays the number that is in the middle of a group (or array) of cells Format: **=MEDIAN**(*starting cell* : *ending cell*)

Choose a cell to type the function (e.g., C8 in the example below) (I've typed a description in the next cell, D8.)

	SUM - 🤄 🗙 🗸 f 🖛 🖛 sum (A1:A7)						
	А	В	С	D	E		
1	12						
2	14		7	count			
3	9		73	73 sum			
4	8		10.42857	average o	or mean		
5	11		14 largest number		umber		
6	9		8 smallest number		number		
7	10		9 mode				
8			=median(A1:A7)			
					1		
	C8	-	(f∗ =ME	DIAN(A1:A7)		
	C8 A	B	C C	f∗ =MEI	DIAN(A1:A7)		
1	C8 A 12	B	C C	fx =ME	E		
1 2	C8 A 12 14	B	с 7	fx =MEI	DIAN(A1:A7) E		
1 2 3	C8 A 12 14 9	B	C 7 73	fx =MEI D count sun	E		
1 2 3 4	C8 A 12 14 9 8	B	C 7 73 10.42857	f ← =MED D count sunt average o	E r mean		
1 2 3 4 5	C8 A 12 14 9 8 11	B	C 7 73 10.42857 14	fx =MEI D count sum average o largest nu	E r mean mber		
1 2 3 4 5 6	C8 A 12 14 9 8 11 9	B	C 7 73 10.42857 14 8	fx =MEI D count sun average o largest nu smallest r	r mean mber number		
1 2 3 4 5 6 7	C8 A 12 14 9 8 11 9 10	B	C 7 73 10.42857 14 8 9	fx =MEI D count sum average o largest nu smallest r mode	r mean mber number		

STDEV – displays the standard deviation of a set or array of data.

Format: =STDEV(starting cell : ending cell)

Choose a cell to type the function (e.g., C9 in the example below) (I've type a description in the next cell, D9.)

	SUM	-	• (= x v	f _x	=std	ev(a1:a7)	
	А	В	С		D	E	
1	12						
2	14		7	coun	nt		
3	9		73	sum			
4	8		10.42857	average or mean			
5	11		14	largest number			
6	9		8	smallest number			
7	10		9	mod	e		
8			10	med	ian		
9			=stdev(a1	:a7)			

	C9		. (=	∫x <mark>=ST</mark> [DEV(A1:A7)
	А	В	С	D/	E
1	12				
2	14		7	count	
3	9		73	sum	
4	8		10.42857	ay erage o	or mean
5	11		14	argest nu	umber
6	9		6	smallest	number
7	10		9	mode	
8			10	median	
9			2.070197	standard	deviation