

Unit 4: Working with Numbers & Formulas

SAT Scores

Commonly Used Formulas

Lesson Overview

It's SAT time at your school. Many colleges require students to take the SAT which is a standardized test that most colleges use as a requirement to be admitted to their school. In order to get a better idea of the types of scores your peers are receiving, you decide to create a worksheet to review the SAT scores from last year's graduating class.

In this lesson, you will create a new worksheet containing student SAT information. You will then apply some commonly used formulas to this information.

New Skills

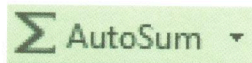
- Using AutoSum
- Using Sum
- Using Average
- Using Minimum
- Using Maximum

Tools & Terms You'll Use

Review the following tools and terms that you will practice in this lesson, as you may be required to take a written assessment test after completing this unit.

AutoSum:

Use this drop-down menu to automatically apply calculations to a range of cells.



Σ Sum

Average

Count Numbers

Max

Min

More Functions...

`=SUM(C5:E5)`

Sum:

Use this option to find the sum of a range of numbers.

`=AVERAGE(C5:C36)`

Average:

Use this option to find the average of a range of numbers.

`=MIN(C5:C36)`

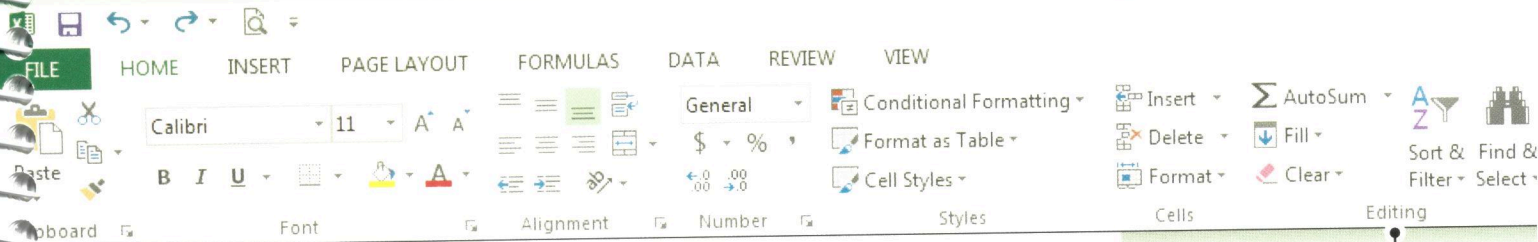
Minimum:

Use this option to find the the lowest figure in a range of numbers.

`=MAX(C5:C36)`

Maximum:

Use this option to find the highest figure in a range of numbers.



Instructions

1. Using Microsoft Excel 2013, create a new Blank workbook.
2. Save the file as *4.6 SAT Scores* in your **My Excel Projects** folder.
3. Key the data as shown in *4.6 Source Doc. A*.
 Ⓢ *Note: Unless otherwise noted, resize the column widths to fit cell contents.*
4. Make the following formatting changes:
 - a. Change the font size of row 1 to 28
 - b. Merge and center cells A1 through F3
 - c. Bold row 4
 - d. Right align cells C4 through F4
5. From the **HOME** tab, **Editing** group, do the following:

a. To find the **total** of cells C5 through E5, position your cursor in cell F5 and click the **AutoSum** icon (*Notice how the range of cells to be added is highlighted*). Hit the Enter key
 Alternatively, you can use the following formula: **=SUM(C5:E5)**

b. To copy the formula used in cell F5, position your cursor in cell F5 and drag the **fill handle** in the bottom right corner of this cell **down** to cell F36

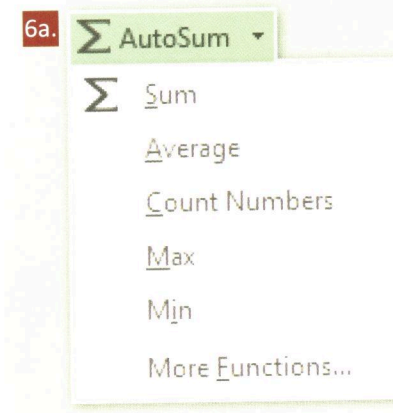
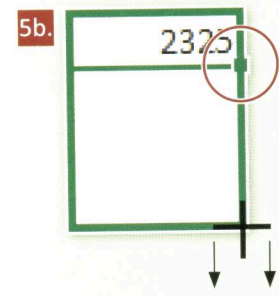
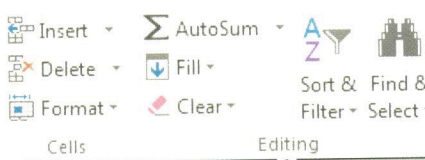
6. From the **HOME** tab, **Editing** group, **AutoSum** drop-down menu, do the following:

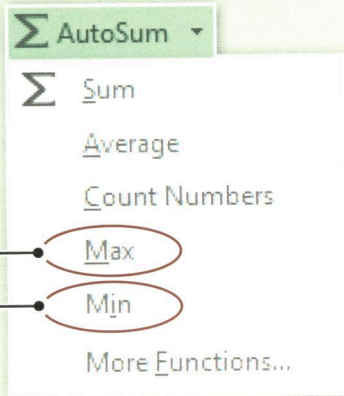
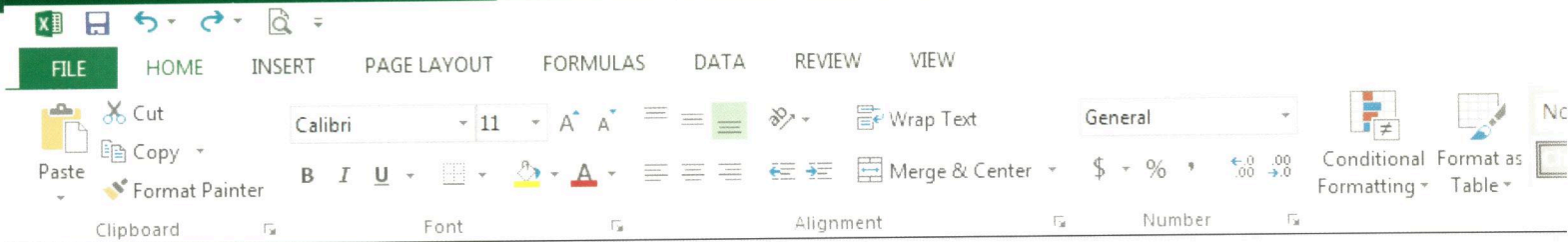
- a. To find the **average** of cells C5 through C36, position your cursor in cell C38 and select **Average**
- b. When prompted to input the range of cells, select cells C5 through C36 and hit the Enter key (as shown below)

35	Black	Mary	584	597	632
36	Matthews	Russell	531	578	625
37					
38			=AVERAGE(C5:C36)		
39			AVERAGE(number1, [number2], ...)		
40					

Alternatively, you can use the following formula: **=AVERAGE(C5:C36)**

- c. To copy the formula used in cell C38, position your cursor in cell C38 and drag the fill handle in the bottom right corner of this cell across to cell F38





- d. To find the **lowest score** in cells C5 through C36, position your cursor in cell C39 and select **Min**
 - e. When prompted to input the range of cells, select cells C5 through C36 and hit the Enter key
Alternatively, you can use the following formula: **=MIN(C5:C36)**
 - f. Copy the formula used in cell C39 to cells D39 through F39
 - g. To find the **highest score** in cells C5 through C36, position your cursor in cell C40 and select **Max**
 - h. When prompted to input the range of cells, select cells C5 through C36 and hit the Enter key
Alternatively, you can use the following formula: **=MAX(C5:C36)**
 - i. Copy the formula used in cell C40 to cells D40 through F40
7. Make the following formatting changes:
 - a. Select cells C38 through F40 and format with 0 decimal places
 - b. Bold cells B38 through F40
 8. Select the Print Gridlines sheet option.
 9. Proofread your work for accuracy and format, then resave the file.
 10. Select all cells containing data and Print Preview your worksheet.
 11. Your worksheet should look similar to 4.6 Source Doc. B.
 12. Print a copy if required.

	A	B	C	D	E	F
1	SAT Scores					
2						
3						
4	Last Name	First Name	Critical Reading	Math	Writing	Total
5	Gray	Lisa	780	770	775	
6	Watson	Gene	650	642	668	
7	Ramirez	Sarah	553	597	557	
8	Brooks	Jack	490	432	451	
9	Watson	Kate	698	621	710	
10	Howard	Luke	448	453	412	
11	Campbell	Casey	512	526	570	
12	Ward	Brian	555	571	462	
13	Phillips	Audrey	599	650	618	
14	Turner	Adam	720	768	710	
15	Mitchell	Samantha	490	485	565	
16	Roberts	Spencer	571	532	545	
17	Allen	Susan	719	712	705	
18	Taylor	Andrew	686	650	565	
19	Baker	Christine	576	632	685	
20	Walker	Klaus	481	468	432	
21	Hall	Lisa	487	497	563	
22	Williams	James	625	587	471	
23	Jackson	Patricia	687	576	615	
24	Thompson	John	712	750	709	
25	Anderson	Marcia	678	632	681	
26	Moore	James	517	418	563	
27	Silva	Maureen	647	531	492	
28	Dennis	John	421	505	625	
29	Lincoln	Kathleen	703	771	737	
30	Rowe	Michael	684	621	648	
31	Michaels	Patrick	573	590	573	
32	Stephens	Daniel	483	458	435	
33	Patrick	Kevin	520	434	565	
34	Mackenzie	Alana	660	713	702	
35	Black	Mary	584	597	632	
36	Matthews	Russell	531	578	625	
37						
38		AVERAGE				
39		MINIMUM				
40		MAXIMUM				



4.6 Source Doc. B

SAT Scores

Last Name	First Name	Critical Reading	Math	Writing	Total
Gray	Lisa	780	770	775	2325
Watson	Gene	650	642	668	1960
Ramirez	Sarah	553	597	557	1707
Brooks	Jack	490	432	451	1373
Watson	Kate	698	621	710	2029
Howard	Luke	448	453	412	1313
Campbell	Casey	512	526	570	1608
Ward	Brian	555	571	462	1588
Phillips	Audrey	599	650	618	1867
Turner	Adam	720	768	710	2198
Mitchell	Samantha	490	485	565	1540
Roberts	Spencer	571	532	545	1648
Allen	Susan	719	712	705	2136
Taylor	Andrew	686	650	565	1901
Baker	Christine	576	632	685	1893
Walker	Klaus	481	468	432	1381
Hall	Lisa	487	497	563	1547
Williams	James	625	587	471	1683
Jackson	Patricia	687	576	615	1878
Thompson	John	712	750	709	2171
Anderson	Marcia	678	632	681	1991
Moore	James	678	632	681	1991
Silva	Maureen	517	418	563	1498
Dennis	John	647	531	492	1670
Lincoln	Kathleen	421	505	625	1551
Rowe	Michael	703	771	737	2211
Michaels	Patrick	684	621	648	1953
Stephens	Daniel	573	590	573	1736
Patrick	Kevin	483	458	435	1376
Mackenzie	Alana	520	434	565	1519
Black	Mary	660	713	702	2075
Matthews	Russell	660	713	702	2075
	AVERAGE	595	586	596	1777
	MINIMUM	421	418	412	1313
	MAXIMUM	780	771	775	2325