# Statistics How To

Statistics for the rest of usl



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PRACTICALLY CHEATING STATISTICS HANDBOOK



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# Interquartile Range (IQR): What it is and How to Find it

Probability and Statistics > Basic Statistics >

The **interquartile range** is a measure of where the "middle fifty" is in a data set. Where a range is a measure of where the beginning and end are in a set, an interquartile range is a measure of where the bulk of the values lie. That's why it's preferred over many other measures of spread (i.e. the average or median) when reporting things like school performance or SAT scores.



The interquartile range formula is the first quartile subtracted from the third quartile: IQR =  $Q_3$  -  $Q_1$ .

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# Solve the formula by hand.

Watch the video or read the steps below:

How to find an interquartile range





# Steps:

• Step 1: Put the numbers in order.

1,2,5,6,7,9,12,15,18,19,27

• Step 2: Find the median.

1,2,5,6,7,9,12,15,18,19,27

• Step 3: Place parentheses around the numbers above and below the median.

Not necessary **statistically**, but it makes Q1 and Q3 easier to spot. (1,2,5,6,7),9,(12,15,18,19,27)

Step 4: Find Q1 and Q3

Q1 can be thought of as a median in the lower half of the data. Q3 can be thought of as a median for the upper half of data.

(1,2,**5**,6,7), **9**, (12,15,**18**,19,27). Q1=5 and Q3=18.

 Step 5: Subtract Q1 from Q3 to find the interquartile range. 18-5=13.

Like the explanation? Check out the Practically Cheating Statistics Handbook, which has hundreds more step-by-step explanations, just like this one!

## What if I Have an Even Set of Numbers?

Sample question: Find the IQR for the following data set: 3, 5, 7, 8, 9, 11, 15, 16, 20, 21.

• Step 1: Put the numbers in order.

3, 5, 7, 8, 9, 11, 15, 16, 20, 21.

• Step 2: Make a mark in the center of the data:

3, 5, 7, 8, 9, 11, 15, 16, 20, 21.

Step 3: Place parentheses around the numbers above and below the mark you made in Step 2-it makes Q1 and Q3 easier to spot.

(3, 5, 7, 8, 9), | (11, 15, 16, 20, 21).

Step 4: Find Q1 and Q3

Q1 is the median (the middle) of the lower half of the data, and Q3 is the median (the middle) of the upper half of the data.

(3, 5, **7**, 8, 9), | (11, 15, **16,** 20, 21). Q1 = 7 and Q3 = 16.

Step 5: Subtract Q1 from Q3.

16 - 7 = 9.

This is your IQR.

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# Find an interquartile range for an **odd** set of numbers:

# **Alternate Method**

As you may already know, nothing is "set in stone" in statistics: when some statisticians find an interquartile range for a set of odd numbers, they include the median in both both quartiles. For example, in the following set of  $numbers: 1,2,5,6,7,9,12,15,18,19,27 \ some \ statisticians \ would \ break \ it into \ two \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, including \ the \ median \ (9) \ in \ halves, in \ h$ both halves:

(1,2,5,6,7,9),(9,12,15,18,19,27)

This leads to two halves with an even set of numbers, so you can follow the steps above to find the IQR.

# Box Plot interquartile range: How to find it

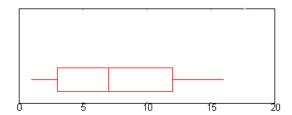
Watch the video or read the steps below:

How to find an interquartile range on a ... 🕓 🤝



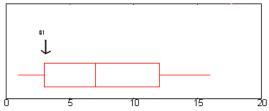


# Box Plot interquartile range: How to find it



Sample question: Find the interquartile range for the above box plot.

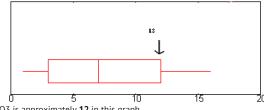
• Step 1: Find Q1.Q1 is represented by the left hand edge of the "box" (at the point where the whisker stops).



In the above graph, Q1 is approximately at 2.6. (If you are interested, a complete explanation of what Q1 is here: The five number summary.)

Step 2: Find Q3.

Q3 is represented on a boxplot by the right hand edge of the "box".



Q3 is approximately 12 in this graph.

**Step 3**: Subtract the number you found in step 1 from the number you found in step 3. This will give you the interquartile range. 12 - 2.6 = 9.4.

That's it!

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# Interquartile Range in Minitab

Read on for step-by-step directions, or view the video version below.

How to find an interquartile range in Mi... ( )



# Interquartile Range in Minitab: Steps

**Sample question:** Find an interquartile range in Minitab for the Grade Point Average (GPA) in the following data set: Grade Point Average (GPA): 1(3.2), 1(3.1), 2(3.5), 2(2.0), 3(1.9), 3(4.0), 3(3.9), 4(3.8), 4(2.9), 5(3.9), 5(3.2), 5(3.3), 6(3.4), 6(2.6), 6(2.5), 7(2.0), 7(1.5), 8(4.0), 8(2.0).

Step 1: Type your data into a Minitab worksheet. Enter your data into one or two columns.

	C1	C2
	Grade	GPA
1	- 1	3.2
2	1	3.1
3	2	3.5
4	2	2.0
5	3	1.9
6	3	4.0
7	3	3.9
8	4	3.8
9	4	2.9
10	5	3.9
11	5	3.2
12	5	3.3
13	6	3.4
14	6	2.6
15	6	2.5
16	7	2.0
17	7	1.5
18	8	4.0
19	8	2.0

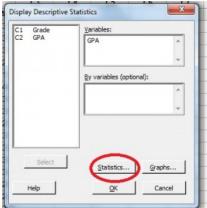
Step 2: Click "Stat," then click "Basic Statistics," then click "Display Descriptive Statistics" to open the Descriptive

Statistics menu.



Step 3: Click a variable name in the left window and then click the "Select" button to transfer the variable name to the right-hand window.

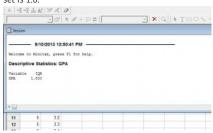
Step 4: Click the "Statistics" button.



Step 5: Check "Interquartile Range."



Step 6: Click the "OK" button (a new window will open with the result). The IQR for the GPA in this particular data set is 1.8.



That's it!

**Tip**: If you don't see descriptive statistics show in a window, click "Window" on the toolbar, then click "Tile." Click the Session window (this is where descriptive statistics appear) and then scroll up to see your results.

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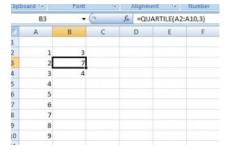
# Interquartile Range in Excel 2007

# How to Find an Interquartile Range Excel 2007

Watch the video or read the steps below to find an interquartile range in Excel 2007:

How to find an interquartile range in Ex... ( )





#### Steps:

Step 1: Enter your data into a single Excel column on a worksheet. For example, type your data in cells A2 to A10. Don't leave any gaps in your data.

Step 2: Click a blank cell (for example, click cell B2) and then type **=QUARTILE(A2:A10,1)**. You'll need to replace A2:A10 with the actual values from your data set. For example, if you typed your data into B2 to B50, the equation will be **=QUARTILE(B2:B50,1)**. The "1" in this Excel formula(A2:A10,1) represents the first quartile (i.e the point lying at 25% of the data set).

Step 3: Click a second blank cell (for example, click cell B3) and then type **=QUARTILE(A2:A10,3)**. Replace A2:A10 with the actual values from your data set. The "3" in this Excel formula (A2:A10,3) represents the third quartile (i.e.

the point lying at 75% of the data set).

Step 4: Click a third blank cell (for example, click cell B4) and then type **=B3-B2**. If your quartile functions from Step 2 and 3 are in different locations, change the cell references.

Step 5: Press the "Enter" key. Excel will return the IQR in the cell you clicked in Step 4

That's it!

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# How to Find an Interquartile Range in SPSS

Like most technology, SPSS has **several ways** that you can calculate the IQR. However, if you click on the most intuitive way you would expect to find it ("Descriptive Statistics > Frequencies") you'll be surprised that it won't list the IQR (although it will list the first, second and third quartiles). You *could* take this route and then subtract the third quartile from the first to get the IQR. However, the easiest way to find the interquartile range in SPSS by using the "Explore" command. If you have already typed data into your worksheet, skip to Step 3. Watch the video or read the steps below:

How to find the Interquartile Range in SPSS



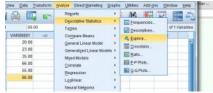




Step 1: Open a new data file in SPSS. Click "File," mouse over "New" and then click "Data."

Step 2: Type your data into columns in the worksheet. You can use as many columns as you need, but don't leave blank rows or spaces between your data. See: How to Enter Data into SPSS.

Step 3: Click "Analyze," then mouse over "Descriptive Statistics." Click "Explore" to open the "Explore" dialog box.



Step 4: Click the variable name (that's just a fancy name for the column heading), then click the top arrow to move the variable into the "Dependent list" box.



The "Explore" variables dialog box.

Step 5: Click "OK." The interquartile range is listed in the *Descriptives* box.

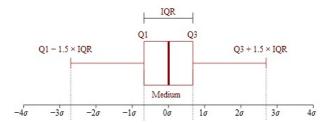
2			Statistic	Std. Error
VAR00001	Mean		44.1667	8.53782
	95% Confidence Interval for Mean	Lower Bound	22.2195	
		Upper Bound	66.1138	
	5% Trimmed Mean		44.2963	
	Median		45.0000	
	Variance		437.367	
	Std. Deviation		20.91331	
	Minimum		20.00	
	Maximum		66.00	
	Range		46.00	
	(Interquartile Range)		43.75	1
	Skewness		075	.845
	Kurtosis		-2.528	1.741

**Tip:** This example has only one list that was typed into the data sheet, but you may have several to choose from depending on how you entered your data. Make sure you select the right variable (column names) before proceeding. If you want your variable names to be more memorable, change the column title by clicking the "variable view" button at the very bottom left of the worksheet. Type in your new variable name and then return to data view by clicking the "data view" button.

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# What is an Interquartile Range?

Imagine all the data in a set as points on a number line. For example, if you have 3, 7 and 28 in your set of data, imagine them as points on a number line that is centered on 0 but stretches both infinitely below zero and infinitely above zero. Once plotted on that number line, the smallest data point and the biggest data point in the set of data create the boundaries of an interval of space on the number line that contains all data points in the set. The **interquartile range** (IQR) is the length of the middle 50% of that interval of space.



The interquartile range is the middle 50% of a data set. Box and whiskers image by Jhguch at en.wikipedia

If you want to know that the IQR is in formal terms, the IQR is calculated as: The difference between the third or **upper quartile** and the first or **lower quartile**. Quartile is a term used to describe how to divide the set of data into four equal portions (think *quarter*).

# **IQR** Example

If you have a set containing the data points 1, 3, 5, 7, 8, 10, 11 and 13, the first quartile is 4, the second quartile is 7.5 and the third quartile is 10.5. Draw these points on a number line and you'll see that those three numbers divide the number line in quarters from 1 to 13. As such, the **IQR** of that data set is 6.5, calculated as 10.5 minus 4. The first and third quartiles are also sometimes called the 25th and 75th percentiles because those are the equivalent figures when the data set is divided into percents rather than quarters.

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# Interquartile Range using the Tl83

Watch the video or read the steps below:

TI 83 Interquartile Range





While you can use the nifty online interquartile range calculator on this website, that might not be an option in a quiz or test. Most instructors allow the use of a TI-83 on tests, and it's even one of the few calculators allowed in the AP Statistics exam. Finding the TI 83 interquartile range involves nothing more than entering your data list and pushing a couple of buttons.

**Sample problem:** Find the TI 83 interquartile range for the heights of the top 10 buildings in the world (as of 2009). The heights, (in feet) are: 2717, 2063, 2001, 1815, 1516, 1503, 1482, 1377, 1312, 1272.

**Step 1:** Enter the above data into a list on the TI 83 calculator. Press the STAT button and then press ENTER. Enter the first number (2717), and then press ENTER. Continue entering numbers, pressing ENTER after each entry.

Step 2: Press the STAT button.

Step 3: Press the right arrow button (the arrow keys are located at the top right of the keypad) to select "Calc."

Step 4: Press ENTER to highlight "1-Var Stats."

**Step 5:** Press ENTER again to bring up a list of stats.

**Step 6**:Scroll down the list with the arrow keys to find Q1 and Q3. Write those numbers down. You *could* copy and paste the numbers but unfortunately, Texas Instruments doesn't make this easy:

- Use the arrow keys to place the cursor at the beginning of the text that you want to highlight.
- 2. Using the TI Keyboard, press and hold down the Shift key, and then use the arrow keys to highlight the text.
- 3. Release the Shift key and arrow key.

The copy and paste menu should appear, enabling you to copy and paste the data. You would have to do this twice (returning to the HOME screen each time), so it's much faster just to write the numbers down.

Step 7:Subtract Q1 from Q3 to find the IQR (which in this set of numbers would be 624 feet).

That's it!
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# How to Find Q1, Q3 and the Interquartile Range TI 89

Watch the video or read the steps below:

TI 89 Interquartile Range







 $\textbf{Sample problem} : \textbf{Find Q}_1, \textbf{Q}_3, \textbf{and the IQR for the following list of numbers} : 1, 9, 2, 3, 7, 8, 9, 2.$ 

**Step 1:** Press APPS. Scroll to Stats/List Editor (use the arrow keys on the keypad to scroll). Press ENTER. If you don't have the stats/list editor you can download it here.

**Step 2:** Clear the list editor of data: press F1 8.

Step 3: Press ALPHA 9 ALPHA 1 ENTER. This names your list "IQ."

Step 4: Enter your numbers, one at a time. Follow each entry by pressing the ENTER key. For our group of numbers, enter

1,9,2,3,7,8,9,2

Step 5: Press F4, then ENTER (for the 1-var stats screen).

**Step 6:** Tell the calculator you want stats for the list called "IQ" by entering ALPHA 9 ALPHA 1 into the "List:" box. The calculator should automatically put the cursor there for you. Press ENTER twice.

Step 7:Read the results.  $Q_1$  is listed as Q1X (in our example, Q1X=2).  $Q_3$  is listed as Q3X (Q3X=8.5). To find the IQR, subtract  $Q_1$  from  $Q_3$  on the Home screen. The IQR is 8.5-2=6.5.

That's it!

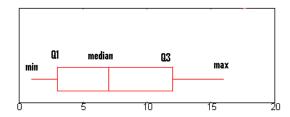
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# What is The Interquartile Range Formula?

The IQR formula is:

 $IQR = Q_3 - Q_1$ 

Where  $Q_3$  is the upper quartile and  $Q_1$  is the lower quartile.



# IQR as a test for normal distribution

The interquartile range formula can also be used in conjunction with the mean and standard deviation to test whether or not a population has a normal distribution. The formula to determine whether or not a population is normally distributed are:

 $Q_1 - (\sigma z_1) + X$ 

 $Q_3 - (\sigma z_3) + X$ 

Where  $Q_1$  is the first quartile,  $Q_3$  is the third quartile,  $\sigma$  is the standard deviation, z is the standard score ("z-score") and X is the mean. In order to tell whether a population is normally distributed, solve both equations and then compare the results. If there is a significant difference between the results and the first or third quartiles, then the population is not normally distributed.

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# What is an Interquartile Range Used For?

The IQR is used to measure how spread out the data points in a set are from the mean of the data set. The higher the IQR, the more spread out the data points; in contrast, the smaller the IQR, the more bunched up the data points are around the mean. The IQR range is one of many measurements used to measure how spread out the data points in a data set are. It is best used with other measurements such as the median and total range to build a complete picture of a data set's tendency to cluster around its mean.

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# Where Does the term Interquartile Range Come From?

Who invented the term "Interquartile Range?" In order to find that out, we have to go back to the 19th century.

# History

British physician Sir Donald MacAlister used the terms *lower quartile* and *higher quartile* in the 1879 publication, the Law of the Geometric Mean. Proc. R. Soc. XXIX, p. 374: " "As these two measures, with the mean, divide the curve of facility into four equal parts, I propose to call them the 'higher quartile' and the 'lower quartile' respectively."

This follows strictly when the number of measures is indefinitely great. It still gives a good approximation to the value of 
$$h$$
 when the number is considerable.

10. Among the measures greater than the mean there is one which may be called middlemost:  $k.c.$ , such that it is an even wager that a measure (greater than the mean) lies above it or below it. A similar middlemost measure exists among those that are less than the mean. As these two measures, with the mean, divide the curve of facility into four equal exists. I propose to call them the "baser quartile" espectively. It will be seen that they correspond to the immed "probable errors" of the ordinary theory. If  $Q$ ,  $q$  be the quartiles we can show that

$$h \log \frac{Q}{a} = 4769 \dots = -h \log \frac{q}{a}.$$
so that  $Qq = a^2$ . Thus also
$$Q^2(G208 \dots) = a^4 = q^4(1611 \dots).$$
Similarly between zero and lower ameritie we place a mid-measure.

Although he was a physician by trade, he was gifted with mathematics and achieved the highest score in the final mathematics exams at Cambridge University in 1877. He was also reported to have spoken nineteen languages including English, Czech and Swedish.

Macalister's paper, the Law of the Geometric Mean was actually in response to a question but forward by Francis Galton. However, it wasn't until 1882 that Galton ("Report of the Anthropometric Committee") used the upper quartile and lower quartile values and the term "interquartile range" which was defined as twice the probable error. Galton wasn't just a statistician — he was also an anthropologist, geographer, proto-genetecist and psychometrician who produced more than 340 books. He also coined the statistical terms "correlation" and "regression toward the mean."

Interquartile Range (IQR): What it is and How to Find it was last modified: January 14th, 2016 by Stephanie Tagged on: interquartile range in statistics, range in statistics



# 42 thoughts on "Interquartile Range (IQR): What it is and How to Find it"

## Cathy Flanagan

September 7, 2009 at 2:32 pm

This article really helped me to understand interquartile range. I really like the hint of using parentheses to find Q1 and Q3! I will definently try it on my next problem.

## Philip Smith

September 9, 2009 at 8:41 am

You make it all seem so easy. I really like the way you break it all down into easy-to-follow steps. More importantly, after reading the article and studying the steps, I feel like it's something I will be able to remember.

## Evelyn Snyder

September 12, 2009 at 8:06 am

Subtract Q1 from Q3 to find the interquartile range.

The online textbook in MathZone helps, but your explanation on what the IQR represents and how it is found, makes it easier to grasp and solve the problem. The IQR is the middle point between Q1 and Q3. Now when I am asked to find the IQR for a report, I will have some knowledge as to "what?" I am being asked. In the past we have charted our ups and downs with a histrogram; but with this class, I will be able to use more pertinent charts to show a more realistic annual report, thanks!

#### Lisa Barcomb

October 4, 2009 at 8:24 pm

Yeah you do make it seem easy but I worked these problems out and I did get them right and then when I went to take my test well that was a different story. I don't know what happened with my thought process, but it went out the window. I also have a problem with those histograms.

#### Vanessa DuBarry

December 14, 2009 at 10:25 pm

I loved how everything is in order and done step by step! this was really helpful thanks for these blogs!

#### Shannon M

December 16, 2009 at 7:16 pm

Many thanks to the author of this page has helped me greatly, unfortunately I found it hard to believe that there is no decent standard deviation pages on this site yet the rest is so thorough....

Regards

Shannon

#### Ela

December 19, 2010 at 6:01 pm

If you say in step 4 that: Q1=5 and Q3=18. then in Step 5. (Subtract Q1 from Q3 to find the interquartile range) You should get 5-18 = -13

## shawa Dominic

January 4, 2011 at 4:34 am

Thanks for the help given

## dwomoh kennedy

March 12, 2011 at 8:08 pm

Thank you for providing me with such a wonderful explanation.

# desperate student

June 9, 2011 at 12:26 pm

frst of all thankyou

ive got exams tomaro n irealy had trouble with IQR

n now i think ive becum n expert wen it comes to iqr..lol thanku again

## Molly

October 13, 2011 at 1:00 am

Makes sense sort of, this way doesnt account for even numbers. but lets say for this set of data.... 1,1,2,2,3,3,4,4,5,5 the median is 3, Q1-2 and Q3-4, so the IQR by your definition would be 2, but according to my statistics textbook the IQR is 2.5...????? So what do you do?

## Stephanie

October 13, 2011 at 3:11 pm

the IQR is subtracting Q1 from Q3. If you have a list of whole numbers, I don't know why your text would come up with a fraction. Perhaps you could post your question in the forum (along with exactly what your

book says).

## Dylan

October 15, 2011 at 7:10 pm

Very intuitive, but what if you have even amount of numbers. For example: 12, 15, 15, 22, 45, 45, 45, 60, 80, 200.

The median is 45 because it's between 45 and 45. Do I now add 12, 15, 15, 22 and 45 and divide by 5 to find Q1?

#### Stephanie

November 1, 2011 at 1:06 pm

#### Dylan,

Tricky question! the simple answer is to follow whatever your text/instructor says. In a basic stats class (at least, in mine) — you'll never be "tricked" by being given an even number of figures to throw you off. In most textbooks you will be guided by an odd number, or a pair of numbers in the center that are similar (as in your question). If they are different, the median is \*sometimes\* the number you get by dividing the left and right numbers from the center. However, this doesn't always work. for example, if you are talking about people — a median of 45.5 people doesn't always make sense (because you can't get half of a person).

Q1 could be that middle figure -15 – or it could be what you said (divide by 5). Again, it depends on the text – and whether the answer makes sense or not (depending upon the figures in the question).

Think of it like a kindergarten question: if Bob has 10 apples and gives Maria 1 apple, how many apples does Bob have? The Kindergarten answer is - of course - 9. However, the answer depends upon whether Bob takes a bite, drops an apple or makes an apple pie.

Stephanie

### jannat iman

November 6, 2011 at 4:46 am

## thanx!

ds data help me alot.....

### jannat iman

November 6, 2011 at 4:47 am

ds data helps me alot...bt need mre explaination,,,....thnx



#### Pramit

November 9, 2011 at 3:32 am

I'm not sure if I'm correct, but here is my calculation:

The given series is: 1,1,2,2,3,3,4,4,5,5 Q1: 0.25(count+1)= 0.25\*11 =2.75 Q3: 0.75(count+1)= 0.75\*11 =8.25

now following the position, we get Q1p= 1.75 & Q3p= 4.25 So IQR: Q3p- Q1p = 4.25-2.75 = 2.5

Let me know if I did it wrong.

#### Said

January 24, 2012 at 11:53 pm

Easy peasy . . . thanks!

#### Tony

February 17, 2012 at 5:27 pm

This is great to learn, how do I find the interquartile range? If I had the same numbers 0,1,3,5,0,2,8,2,1,3 and I had a list of names but the numbers would say something

like the number of arrest. How do I figure this one out.

#### Andale

March 19, 2012 at 12:57 pm

I used the Interquartile Range Calculator and got the following results:

25th Percentile: 2

50th Percentile: 3

75th Percentile: 4

Interquartile Range: 2

It's a good way to check your work :)

Stephanie

## DIONNA MAYFIELD

May 20, 2012 at 11:33 am

omg soo easyy thankyou

#### Jawaher

May 26, 2012 at 9:42 am

These tips are very helpful. Thanks a lot

## Jarrod Page

June 9, 2012 at 7:10 pm

thanks a heap, shopuld be abble to get through my maths mid year now :D

## Godwin yohanna

June 29, 2012 at 12:04 pm

Thanks i learn how to find interquartile range. what is the secret behind the use of percentile

#### Jules Lee

July 19, 2012 at 7:46 pm

Thank you! I found your blog as the best alternative to my book. My book suck at explaining!

## Andale

July 20, 2012 at 11:05 am

Glad it helped!

Stephanie

#### charnay

August 10, 2012 at 5:41 am

Thanks so much. This was a clear, understandable, answer on how to solve inter-quartile range.

## pooh

September 20, 2012 at 7:20 pm

how do i get interquartile range and standard deviation for 112,111,107,92,80,81,84,118,106,103,94

#### Andale

September 21, 2012 at 4:19 pm

Pooh...just use the IQ and std dev calculators on this site. It isn't just a calculator...it shows you the answer step-by-step too :)

http://www.statisticshowto.com/calculators/

#### kayla

October 31, 2012 at 1:07 pm

this was so helpful thank you so much!

#### Carol

November 1, 2012 at 5:43 pm

#### Ella

the directions are right.....careful how you read them....subtract the Q1 FROM Q3.....18-5=13

## Captain Falcon

November 27, 2012 at 5:46 am

Thanks that actually really helped, and you break it down so easy. love your work and keep it up

#### Brian Ombisa

December 5, 2012 at 11:16 pm

How about in cases where the data is big that you can not arrange it all. Also where they are in classes how do you go about with that.

## Andale

December 10, 2012 at 5:57 am

Brian...large data, you can use MS Excel. As for classes....my first thought would be that's impossible (unless you have the raw data).

#### Darlene

December 12, 2012 at 11:47 pm

This method doesnt work at certain questions

#### Andale

December 13, 2012 at 7:03 am

Hi, Darlene,

	questions?
Stephanie	
	Kris Keyes January 21, 2013 at 11:38 am
How do you fin	d the interquartile range for a set with an even amount of values?
	Andale January 22, 2013 at 6:29 am
Kris,	
	ts prevent me from answering stats questions in the commentsbut post on our forums and a happy to help :)
Stephanie	
	Cassi April 19, 2013 at 8:11 pm
Simplified and	easy to follow – Thankyou so much!
	Md. Abdus Samad July 27, 2015 at 4:13 am
very easy and s	imple to realizethank a lots
	edmond kiprono August 12, 2015 at 7:17 am
The methods y	ou've illustrated are working precisely.
	selma February 29, 2016 at 9:17 am
this was helpfu	ll , the steps are easy to follow so thanks alot for helping us
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3/1/2016	Interquartile Range (IQR): What it is and How	to Find it
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