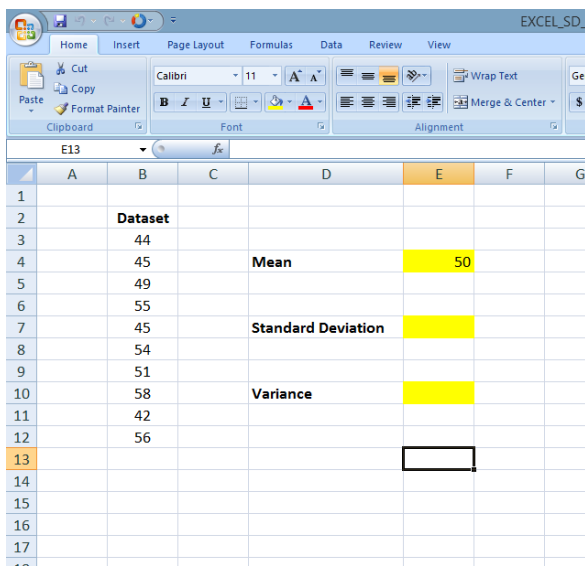# Spreadsheets: Standard Deviation and Variance

In this video, we'll use the functions in Excel to find the standard deviation and variance of a date set. The data set in this case is the numbers in this column here.



Spreadsheet programs such as Excel and Zoho Sheets have functions built in that make it easy to calculate standard deviation and variance. Standard deviation and variance are both measures of dispersion. They measure how spread out the data is around its mean. So, we've already calculated the mean, or average of the dataset, to be 50. Remember, we type in an equal sign, average and then select the data set.

To find the standard deviation, type an equal sign to initiate the start of a formula. Then, type STDEV and an open parenthesis. You'll see the spreadsheet program prompt you with what to enter. In this case, it's asking for number 1, number 2, etc. The spreadsheet program is asking for your dataset. Click and drag your cursor to enclose the whole data set. In some cases, the program will already have the closed parenthesis. But in other cases, you'll have to add it.

Click enter to see the calculation done for you.



The standard deviation of this dataset is 5.7, which is relatively low and indicates that the dataset is not very spread out.

Variance is calculated the same way. A variance of zero would mean that all the values in the dataset are identical. Excel and Zoho Sheets all use "VAR" for the variance formula. Type an equal sign to initiate the formula, then type VAR. Then, again, click and drag to include your whole dataset.



Then click enter to find that the variance of this dataset is 32.5.