



# ICAEW Excel 04 Correl

In this video, I'm going to talk to you about the Correl function in Excel, which will calculate the correlation coefficient of two sets of numbers, correlation coefficient being a measure of the extent to which those two sets of data are related to each other.

Here, we've got a number of dates down the left. On each date we saw a number of customers. So, this could be customers in a shop or some kind of online business. And there you can see in column D, we've got the total revenue generated on those particular dates. And the question is to what extent is the revenue correlated to the number of customers in Column C? So, if you imagine the more customers you have, the more revenue you might imagine you might accrue. So, you would imagine that would be a correlation between these two sets of data? Well, we can use equals, Correl to find out this is the way it works. I'm going to do this over here in cell H5, equals, Correl, open brackets. And it's very simple. We just point to the first array of data and then the second array of data separated with a comma. So, let's point to the number of customers, which is this column of data here, comma, point to the second array of data, and then we finish with a closed bracket. And that should give us the correlation coefficient between these two sets of data. The answer is nought point seven nine.

So, correlation coefficient varying between one, which would be perfectly correlated, negative one, which will be perfectly inversely correlated or zero for no correlation whatsoever. You can see how it's derived down there in the box to towards the bottom right equals Correl Array 1 comma Array 2.