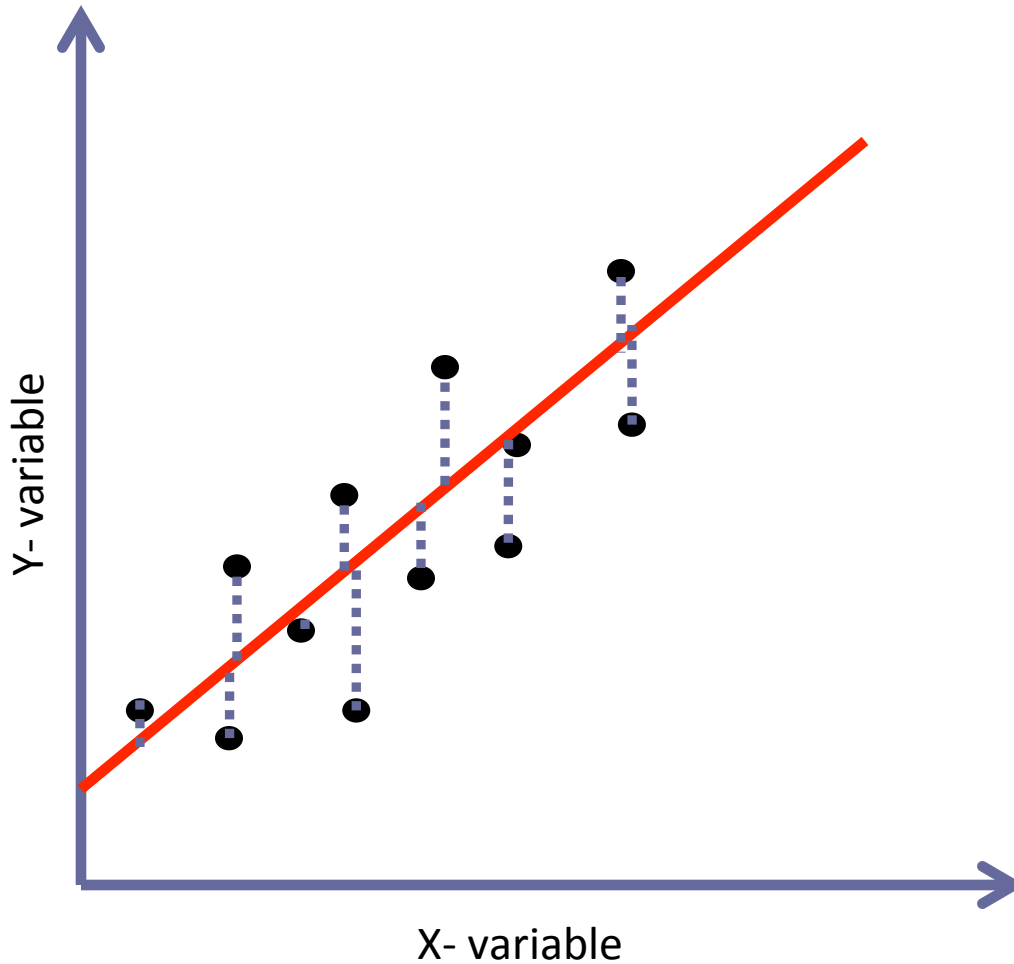


How do we know that this is the best-fitting trend line?

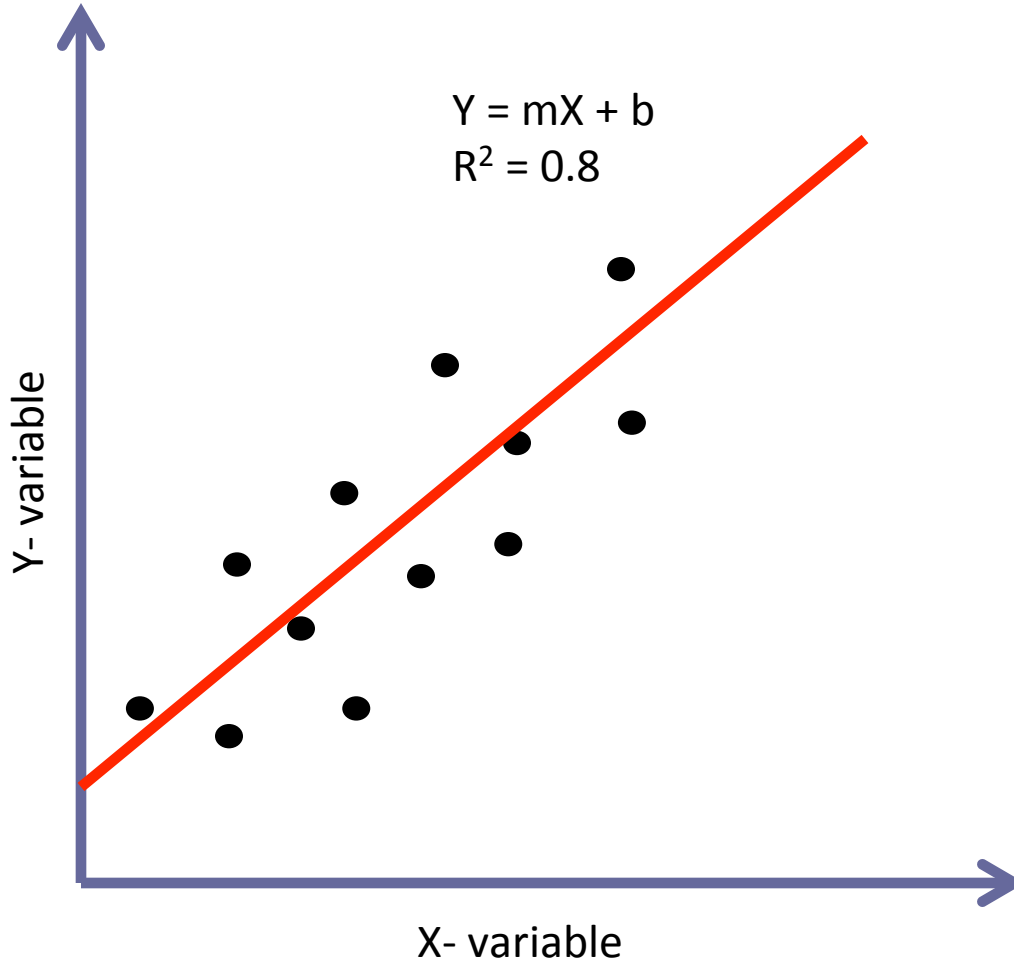
What makes it better than other lines we could draw?



The most common way we determine the best fitting line is by finding a line that minimizes all the blue distances.

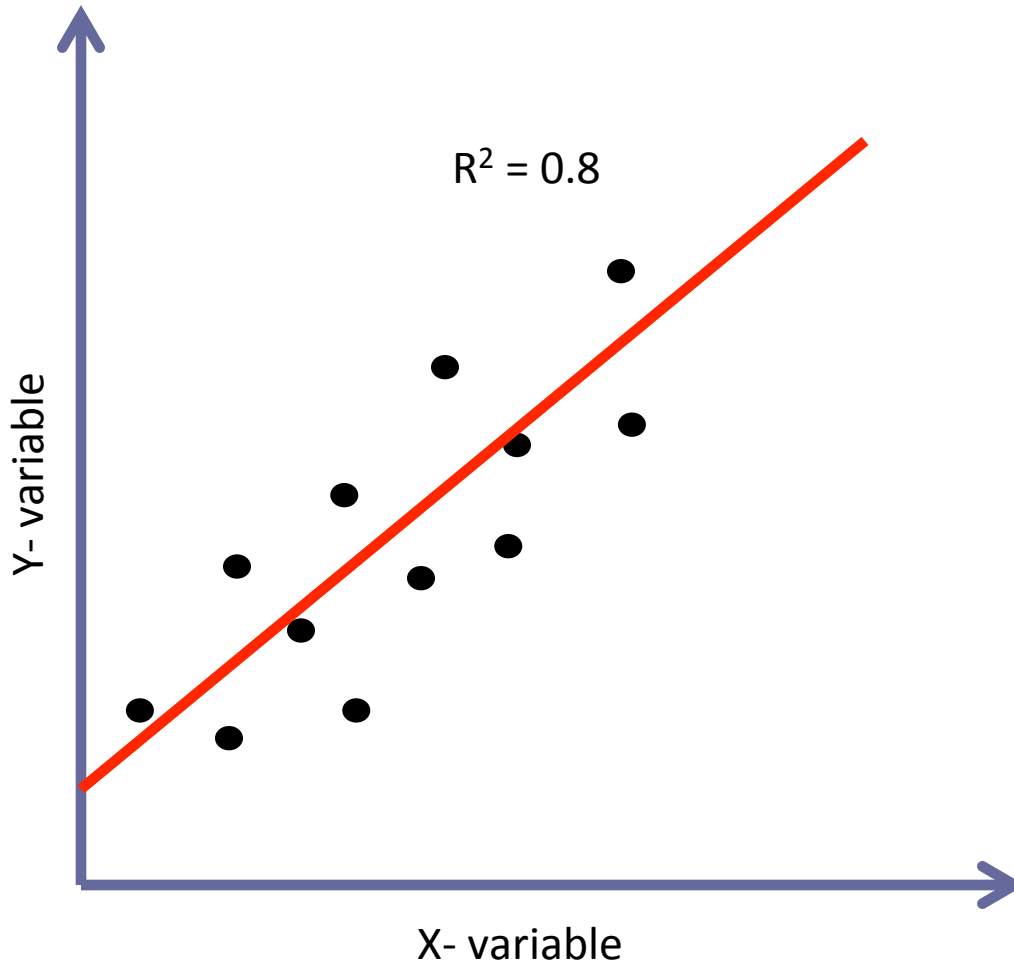
This is called the “Ordinary Least Squares” method

Luckily, Microsoft Excel does this for us.



Microsoft Excel will give us an equation for the trend line and an R^2 value

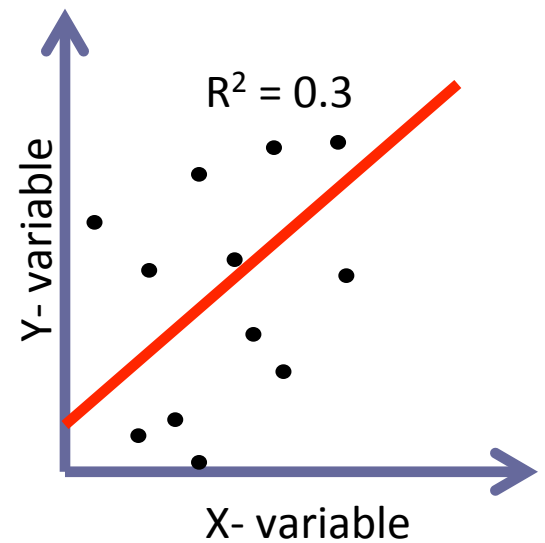
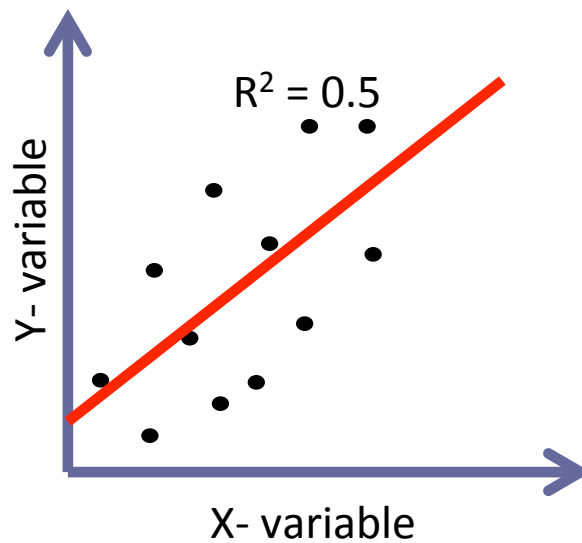
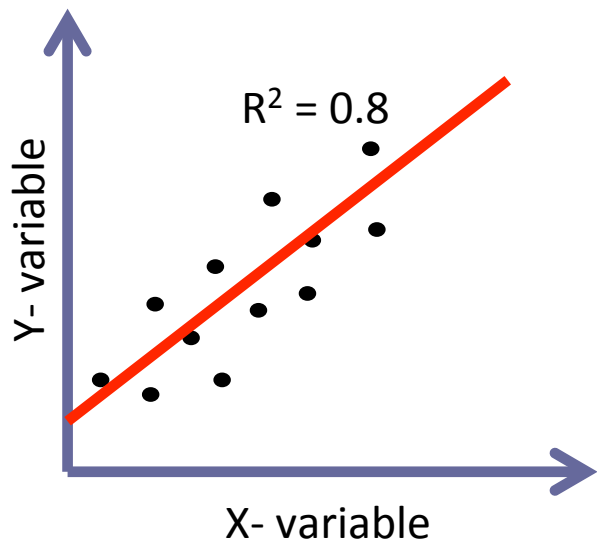
What does R^2 mean?



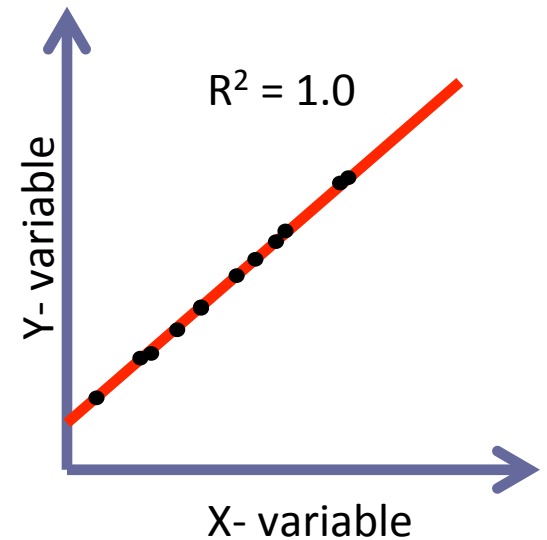
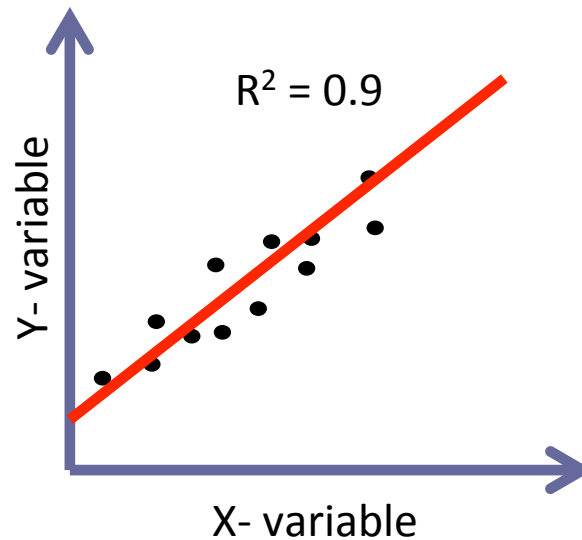
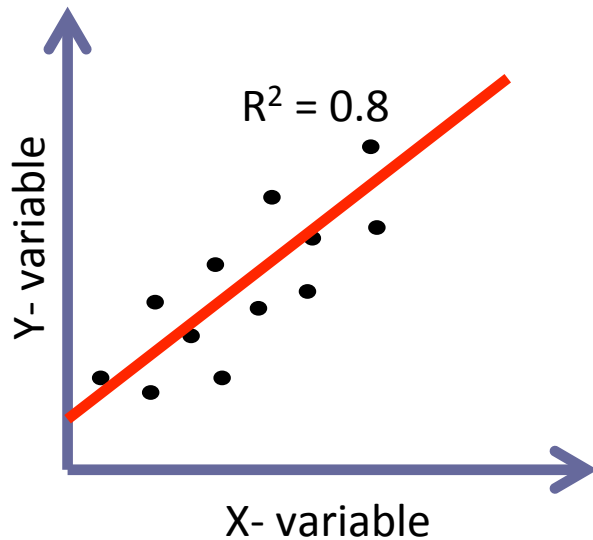
The R^2 value is basically a measure of how close our data points fall to our trend line.

R^2 ranges from 0 to 1.

The closer R^2 is to 0, the farther our data points are from the line.



The closer R^2 is to 1, the closer our data points are to the line.



We will consider an R^2 value of 0.9 or greater to indicate a **good association**.