

# Least Squares Regression

**The Explanatory variable** is the one that you control and change in the 'experiment' (it usually comes first [x])

**The Response variable** is the one that you measure after adapting the explanatory variable (it usually comes second [y])

For each of the scenarios below, write 'E' next to the explanatory variable and 'R' next to the response variable.

A speedometer measuring Km/hr is found to be faulty. It is then tested to find out the readings that it gives against the true speed of the car.

- \_\_\_ The reading on the speedometer
- \_\_\_ The test of the readings
- \_\_\_ The true speed of the car

Pupils in a class sat a GCSE paper at the end of year 11 and an A level paper at the end of year 13 and their percentages are recorded.

- \_\_\_ The percentage on the GCSE paper at the end of year 11
- \_\_\_ The percentage on the A level paper at the end of year 13
- \_\_\_ The recorded percentages on the papers

A business woman records the length of the time it takes to get to work in a morning and the maximum speed of her journey

- \_\_\_ The distance the woman travels to work
- \_\_\_ The length of time it takes to get to work in the morning
- \_\_\_ The maximum speed of the journey

The UK shoe sizes of a class of 20 students are recorded and then converted to EU sizing.

- \_\_\_ The UK shoe size of the 20 students
- \_\_\_ The average shoe size of the 20 students
- \_\_\_ The EU shoe size of the 20 students

A hot dog vendor recorded the number of hot dogs sold in a day (to the nearest 10) and the maximum temperature that day (°C)

- \_\_\_ The number of hot dogs sold in a day
- \_\_\_ The number of customers served in a day
- \_\_\_ The maximum temperature of the day