

# Questions 9: Linear Models

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## Question 1

What is a model and its error, and how can they be defined in terms of information?

## Question 2

What are the linear models, and why are they called 'linear'?

## Question 3

What are the data-driven models, and what does the data represent?

## Question 4

Why plotting the data on a chart can be useful?

## Question 5

How can the errors of the model be measured? Why is it important for the choice of model?

## Question 6

Compute the linear mean-square model for the following set of data:

Monthly Income (£K)	Home Owner
2	0
1	0
6	1

## Question 7

Compute correlation for the following set of data:

Monthly Expenses (£K)	Home Owner
1	0
2	1
1	1
2	0

What does the value of the correlation mean in this case?