

Dr Oliver Mathematics
Mathematics
Statistical Models
Past Examination Questions

This booklet consists of 3 questions across a variety of examination topics.
The total number of marks available is 9.

1. (a) Write down two reasons for using statistical models. (2)
- (b) Give an example of a random variable that could be modelled by (2)
 - (i) a normal distribution,
 - (ii) a discrete uniform distribution.
2. (a) Give two reasons to justify the use of statistical models. (2)

It has been suggested that there are 7 stages involved in creating a statistical model.
They are summarised below, with stages 3, 4, and 7 missing.

Stage 1: The recognition of a real-world problem.

Stage 2: A statistical model is devised.

Stage 3:

Stage 4:

Stage 5: Comparisons are made against the devised model.

Stage 6: Statistical concepts are used to test how well the model describes the real-world problem.

Stage 7:

- (b) Write down the missing stages. (3)
3. Statistical models can provide a cheap and quick way to describe a real world situation.
Give two other reasons why statistical models are used.