



QUESTION WORKBOOK

Sampling and the large data set

Statistics · Year 12–13

7 questions · 20 marks

NAVY SCREEN EDITION

SECTION A · Warm-up

A1 Define the terms population, census and sample. [2]

A2 State what is needed before a simple random sample can be taken, and the property every member must have. [2]

SECTION B · Standard

B1 A college has 720 first-year and 480 second-year students. Describe how to take a sample of 50, stratified by year group. [4]

B2 Describe how to take a systematic sample of 60 from a payroll list of 1200 workers. [3]

- B3** Explain why a stratified sample might be preferred over a simple random sample for the college in the earlier question. [3]

SECTION C · Stretch

- C1** A researcher stands outside a gym at 7 am and questions people about exercise habits. Name this sampling method and explain the bias. [3]

- C2** A survey about internet reliability is run entirely through an online form. Explain the sampling problem, and its likely effect on the results. [3]
