



QUESTION WORKBOOK

Representing and interpreting data

Statistics · Year 12–13

7 questions · 20 marks

NAVY SCREEN EDITION

SECTION A · Warm-up

A1 In a histogram, the class $20 \leq x < 25$ has frequency 30. Find its frequency density. [2]

A2 Another class, $10 \leq x < 30$, is drawn with frequency density 1.5. Find its frequency. [3]

SECTION B · Standard

B1 In a histogram, the class $0 \leq x < 20$ has frequency 40. The bar for $20 \leq x < 25$ is drawn 1.6 times as tall. Find the frequency of the second class. [4]

B2 A data set has $Q_1 = 20$ and $Q_3 = 36$. Using the $1.5 \times \text{IQR}$ rule, determine whether the values 62 and 58 are outliers. [3]

- B3** On a box plot, the median line sits much closer to Q_1 than to Q_3 . Describe the skew, and what it says about the data. [3]

SECTION C · Stretch

- C1** Two box plots show daily journey times for two routes. Route A: median 30 minutes, IQR 6. Route B: median 28 minutes, IQR 18. Compare the routes in context. [3]

- C2** Explain why histogram bars must be compared by area rather than height when class widths differ. [2]
