

Handling Data Revision

1) When 11 pupils took a test, their mean mark was 56. When a 12th pupil who had been away came back and took the test, the mean rose to 58. What was the 12th pupils mark?

2) The following data shows the masses of a sample of 200 potatoes taken from a field:

Mass (grams)	60-80	80-100	100-110	110-120	120-130	130-140	140-180
No of potatoes	8	26	24	27	37	23	55

(a) Calculate the mean mass of a potato.

(b) Draw a histogram to show this data.

(c) Comment on the shape of the distribution.

3) Using the data given in question 3,

(a) Draw up a cumulative frequency table, and draw a cumulative frequency graph.

(b) Use your cumulative frequency graph to estimate:

(i) the median

(ii) the interquartile range

(c) Estimate the probability that a potato chosen at random will have a mass:

(i) greater than 145g

(ii) less than 90g

4) In a certain sixth form college, $\frac{2}{3}$ of the pupils are boys. Only $\frac{1}{4}$ of the boys study French, whereas $\frac{3}{5}$ of the girls do so. A pupil is selected at random.

(a) Draw a tree diagram showing the above information.

(b) What is the probability that the pupil is a boy who doesn't study French?

(c) What is the probability that the pupil studies French?

5) A bag contains 7 red beads and 3 white beads. Beads are drawn and not replaced.

(a) If three beads are drawn, what is the probability that exactly two of them are red?

(b) If beads are drawn until a white one is chosen, what is the probability that exactly four beads are drawn?