

National 5 Final Exam Practice

Statistical Skills

Comparing Data Using Statistical Formulae

Average Allocation

4 Marks

1. After playing in a mini-series, a basketball team scored the following points in each of their games:

68 74 71 76 70 72 80

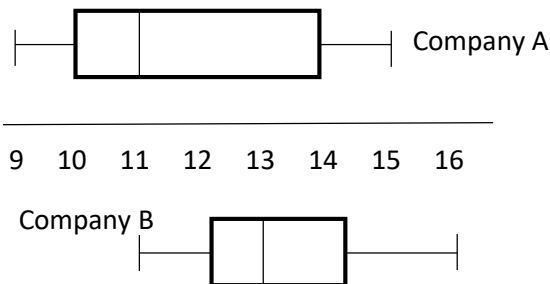
- a) Calculate the mean and standard deviation of this data.
- b) The coach made several changes to the team for the next mini-series of games. The scores for this series had a mean of 76 and a standard deviation of 3.2.

Make 2 comparisons about the scores in each series and comment on whether the changes to the team was justified.

2. The speed, in km/hr, of a tennis player's serves in a game were recorded as follows.

124 115 110 116 121 122

- a. Use appropriate formula to calculate the mean and standard deviation of the data.
- b. In his next service game, he recorded a mean of 103 and a standard deviation of 4.9 for his serves. Make 2 comparisons about both service games.
3. Two internet delivery companies had their times recorded. A box plot was drawn to summarise these times.



- a. Which company was more consistent? Explain your answer.
- b. Calculate the semi interquartile range for each company.
- c. Which company offers best service? Explain your answer.
4. Two groups of 6 pupils sit the same exam. The first group of scores is recorded as:
- 72 71 62 70 63 70
- a. Using appropriate statistical formula, calculate the mean and standard deviation of this data.
- b. The 2nd group of pupils scored a mean of 71 and a standard deviation of 3.1.
- Make 2 comparisons between the scores of each group of pupils.