

Formulae

$$s = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

$$s = \sqrt{\frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n - 1}}$$

**Q1** Calculate the mean of each of these data sets:

- a) 4, 9, 15, 8, 14
- b) 8, 3, 12, 14, 21, 8
- c) 24, 28, 32, 29, 36, 37
- d) 74, 68, 71, 54, 49, 72, 78, 66

**Q2** Find the median of each of these data sets:

- a) 10, 7, 11, 9, 13
- b) 4, 9, 12, 10, 5, 9, 7
- c) 32, 37, 35, 39
- d) 45, 49, 43, 48, 50, 41

**Q3** Find the interquartile range (IQR) of each of these data sets:

- a) 24, 26, 28, 25, 22, 32, 21
- b) 4, 2, 1, 3, 7, 8, 5, 6, 9, 3
- c) 18, 23, 19, 14, 20, 16
- d) 56, 53, 59, 61, 59, 54, 62, 65

**Q4** Calculate the mean and standard deviation of each of these data sets:

- a) 3, 9, 7, 6, 5
- b) 14, 17, 12, 13
- c) 4, 7, 9, 8, 6, 4, 5, 3, 8, 6
- d) 19, 14, 24, 21, 26, 27, 28, 25

**Q5** A set of 6 numbers has a sum of 38. The sum of the numbers' squares is 286.

Calculate the standard deviation of this data set.

**Q6** Brian and Ross each play nine holes of golf.

Brian's score sheet is: 8, 3, 5, 6, 9, 4, 4, 7, 8.

Ross's score sheet is: 7, 9, 6, 7, 7, 6, 7, 6, 8.

Calculate each player's mean and standard deviation, and make two valid comparisons.