

## Standard Deviation (Exam Type Questions)

1. During a recent rowing competition the times, in minutes, recorded for a 2000 metre race were
- 7.2            7.3            7.3            7.5            7.6            8.4
- (a) Calculate the mean and standard deviation of these times. Give both answers correct to 2 decimal places.
- (b) In the next race the mean time was 7.76 and the standard deviation was 0.49. Make two valid comments about this race compared to the one in part (a).
2. 6 friends joined "Super Slimmers", a weight loss class. Their weights were recorded and the results are shown below.
- 65kg            72kg            74kg            81kg            90kg            98kg
- (a) Calculate the mean and standard deviation of the weights.  
After 6 weeks the mean weight was 74kg and the standard deviation was 8.6
- (b) Compare the mean and standard deviation of the friend's weights.
3. Stewart and Jenni complete a crossword puzzle every day. Here are the times (in minutes) that Stewart took to complete it each day for a week.
- 63    71    68    59    69    75    57
- (a) Calculate the mean and standard deviation for Stewart's times.
- Every day Jenni took exactly 5 minutes longer than Stewart to complete the puzzle.
- (b) Write down Jenni's mean and standard deviation.
4. The number of hours spent studying by a group of 6 student nurses over a week were
- 20    23    14    21    27    24
- (a) Calculate the mean and standard deviation of this data.
- (b) A group of student teachers had a mean of 21.5 and a standard deviation of 6. Make two valid comments to compare the study times of the 2 groups of students.
5. Barbara is looking for a new 'A-Pod' and searches for the best deal. The costs of the 'A-Pod' are shown below.
- £175            £185            £115            £87            £150            £230
- (a) Calculate the mean and standard deviation of the above data.
- (b) A leading competitor, the 'E-Pod', has a mean price of £170 and a standard deviation of 26.7. Make **two** valid comparisons between the 2 products.