## Mean, Median, Mode, Standard deviation, Quartiles and Box plots

1. Find the mean , median, mode, range and Standard deviation of the following set:-
a) $2,3,4,5,6,7,8,8,9$
b) $3,5,2,9,1,8,2$
c) $6.5,4.7,10.2,9.1,8.8,12.0,7.5$
d) $115,130,122,129,130,133,136$
2. Two men were playing a 'friendly' game of darts. The scores, for each of their first six darts, are shown below.

| John | 18 | 22 | 17 | 20 | 15 | 16 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mark | 3 | 38 | 6 | 30 | 1 | 30 |

a) Show that both men scored the same mean.
b) By drawing up 2 separate tables, Calculate the Standard deviation of both men's scores.
c) Comment on what the two different standard deviations tell you about the men's scores.
3. Find the lower quartile, the meddle quartile (the median), the upper quartile and then draw a neat box plots to represent the values for each of these:-
a) $13,13,15,16,21,23,24,28,29$
b) $3.2,3.5,3.6,3.8,3.8,4.0,4.4,4.4,4.7,5.3,5.4,5.9$.
c) $34,31,25,35,35,23,23,40,37,27,21,29,39$.
4. On a field trip, Marry collects 7 worms and measures their lengths.
$6.5 \mathrm{~cm}, 4.7 \mathrm{~cm}, 10.2 \mathrm{~cm}, 9.1 \mathrm{~cm}, 8.8 \mathrm{~cm}, 12.0 \mathrm{~cm}, 7.5 \mathrm{~cm}$.
Calculate the Standard deviation.

