

## MathsResource.github.io - Descriptive Statistics Tutorial Sheet 1

### Question 1 : Computing the Sample Mean

- (i) Compute the sample mean for the following data set:

$$x = \{14, 22, 19, 25, 20, 18, 17, 29, 27\}$$

- (ii) Compute the sample mean for the following data set:

$$x = \{10, 3, -7, -9, 7, 2, 4, 19, 25, -6\}$$

- (iii) Compute the sample mean for the following data set:

$$x = \{6, 4, 5, 0, -8, 17, -7, 23, 0, 9\}$$

### Question 2 : Median and Interquartile Range

For each of the following data sets, sort the values into ascending order and state the sample size. Then compute the median and interquartile range (IQR).

- (i)  $\{31, 40, 33, 39, 11, 12, 28, 23, 18, 15, 34, 24\}$

- (ii)  $\{31, 21, 37, 27, 28, 11, 10, 23, 35, 34, 22\}$

- (iii)  $\{38, 25, 40, 32, 30, 16, 11, 36, 31, 12\}$

- (iv)  $\{28, 13, 33, 23, 25, 26, 40, 16, 38\}$

### Question 3 : Computing Sample Variance and Standard Deviation

- (i) Compute the sample variance and standard deviation of the following data set:

$$x = \{5, -11, 9, 20, 18, 21, -8, 19, 8\} \quad (\bar{x} = 9)$$

- (ii) Compute the sample variance and standard deviation of the following data set:

$$x = \{32, 20, 15, 49, 30, 28, 33, 35, 34, 44\} \quad (\bar{x} = 32)$$

- (iii) Compute the sample variance and standard deviation of the following data set:

$$x = \{19, 16, 35, 34, 27, 17, 20\} \quad (\bar{x} = 24)$$