

## Exercise 2015-8EJ-00002(1)

(1) Consider the following set of data and answer the following questions:

67   23   33   56   37   29   66   59   40   112   64   76   21   37   69   33

- (a) Determine the range.
- (b) Determine the outlier(s), if applicable.
- (c) Write down the mode.
- (d) Determine the median by first arranging the data.
- (e) Calculate the average mean of the data.

(2) Explain the difference between a bar graph and a histogram.

(3) Calculate the class boundaries and the class midpoint for each of the classes in the table:

| Class:          | A      | B       | C       | D       | E         | F         |
|-----------------|--------|---------|---------|---------|-----------|-----------|
| Class-interval: | 0 - 24 | 25 - 49 | 50 - 74 | 75 - 99 | 100 - 124 | 125 - 149 |

(4) The heights (measured in cm) of the school's RSC is as follow:

|     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | 187 | 154 | 167 | 188 | 178 | 156 | 189 | 180 | 175 | 168 |
| 166 | 161 | 199 | 167 | 156 | 170 | 171 | 156 | 187 | 179 | 185 |
| 181 | 150 | 176 | 168 |     |     |     |     |     |     |     |
| 182 | 178 | 185 |     |     |     |     |     |     |     |     |

- (a) Present the data as a stem-and-leaf diagram.
- (b) Determine the modal length of the RSC.
- (c) Calculate the average height of the members of the RSC.
- (d) Determine the median of the data.

(5) Consider the scatter graph and answer the following questions:

The graph shows the correlation between the number of push-ups and the number of sit-ups that a group of grade 8 learners can do in 10 seconds.

(a) Are there any outliers?

If so, name the point(s).

(b) Fully describe the scattering.

(c) What is the highest number of push-ups done in the 10 seconds?

From which point(s) on the graph was the reading done?

(d) What is the highest number of sit-ups done in the 10 seconds?

From which point(s) on the graph was the reading done?



