**FREQUENCY FREQUENCY**

**EXPRESSIONS**

**BOX PLOTS &**

**EXPRESSIONS**

**CUMULATIVE FREQUENCY**

**EXPRESSIONS**

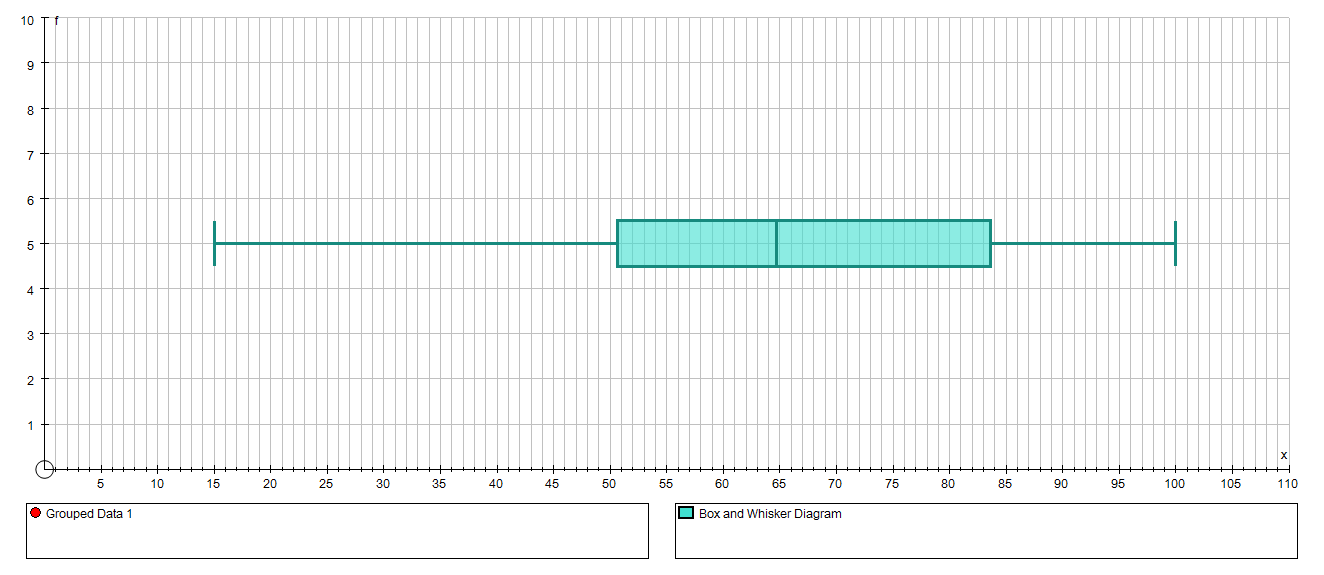
**B**

**Pythagroas**

**GRADE BUSTER**

*Your ‘5 a day’ mathematical workout*

1. The box plot gives information about the maths results for Class A:



Exam %

a) Write down the median result.

b) Find the interquartile range of the results.

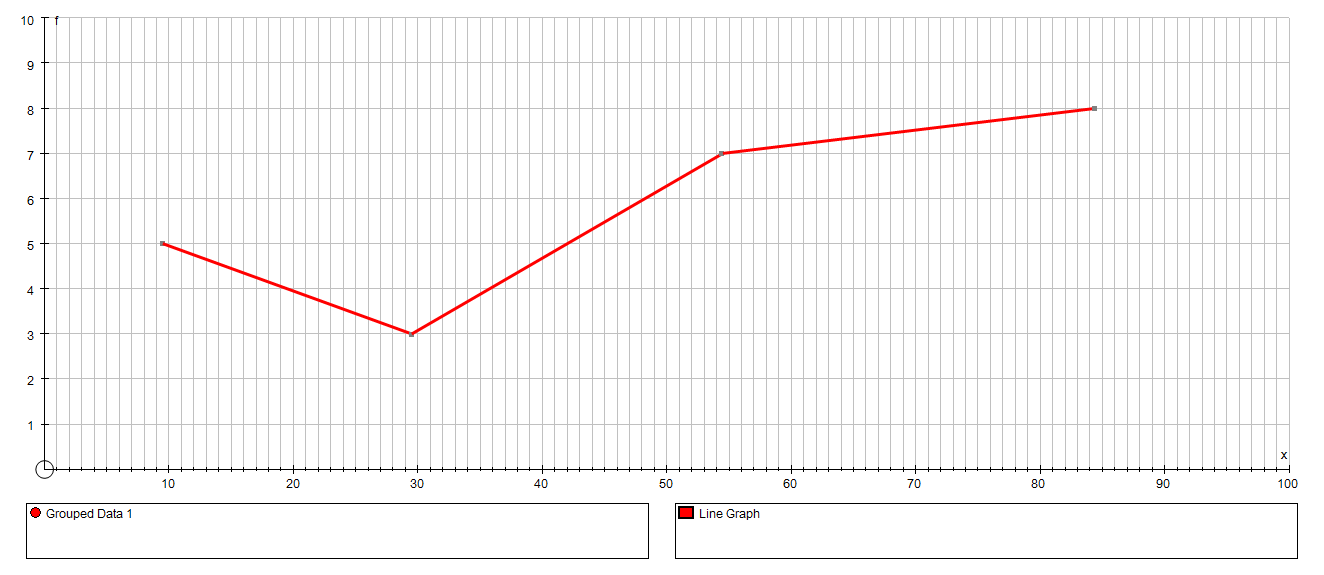
2. The table gives some information about the maths results for Class B:

|  |  |
| --- | --- |
| Exam percentage (%) | Frequency |
| Lowest mark | 25 |
| Lower quartile | 65 |
| Median | 75 |
| Upper quartile | 80 |
| Highest mark | 90 |

On the grid above, draw a box plot to show this information.

3. Draw 3 other box plots with the same median and upper quartile range as Class B.

4. i) Explain what is wrong with the following solution:



a) Construct a cumulative frequency curve:

|  |  |
| --- | --- |
| Results (%) | Frequency |
| 0 ≤ x < 20 | 5 |
| 20 ≤ x < 40 | 3  Frequency |
| 40 ≤ x < 70 | 7 |
| 70 ≤ x < 100 | 8 |

b) Using the graph, estimate the median

Median = 19.5

Results %

result.

ii) Find the correct solution

5) Compare the results of Class A and Class B in questions 1 and 2.

|  |  |  |  |
| --- | --- | --- | --- |
| Qu |  | ☺ | ☹ |
| 1 & 5 | I can extract information from a box plot |  |  |
| 2 & 3 | I can construct a box plot |  |  |
| 4 | I can construct cumulative frequency curves |  |  |
| 4 | I can use construct cumulative frequency curves to estimate the median |  |  |

|  |
| --- |
| Top tips I must remember for the exam: |
| ☺  ☺  ☺ |
| Types of questions I need to practise more: |
| ☺  ☺  ☺ |