GCSE HIGHER · REVISION MAT 3

Averages, spread and box plots

1 Find the median of

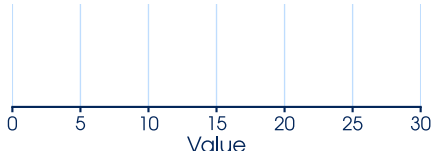
15, 22, 9, 31, 18

2 Find the interquartile range of

3, 7, 8, 10, 12, 15, 18, 21, 25, 30, 33

3 Which average is best for shoe sizes sold in a shop? Explain.

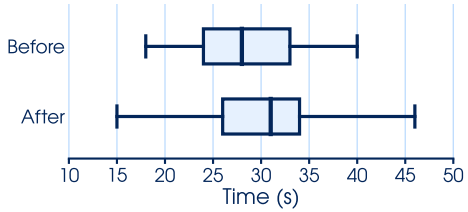
4 Draw a box plot for: minimum 4, Q1 9, median 13, Q3 18, maximum 25.



5 The mean of 3, x, 7 and 10 is 6.

Show that $x = 4$.

6 Compare the two sets of times.



7 Explain why the mean from a grouped frequency table is only an estimate.

8 Class A: 20 students, mean 64.

Class B: 30 students, mean 72.

Find the mean of all 50 students.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

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1 9, 15, 18, 22, 31

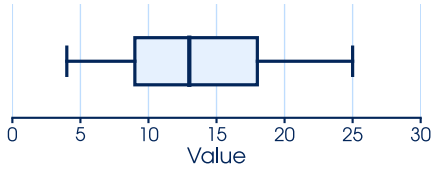
18

2 Q1 = 8, Q3 = 25

17

3 **The mode: it shows the most popular size.**

4 **Box from 9 to 18 with a line at 13; whiskers to 4 and 25.**



5 $20 + x = 24$

$x = 4$

6 **After: higher median (31 vs 28)**

After: smaller IQR (8 vs 9), so slightly more consistent

7 **The exact values are not known, so midpoints are used.**

8 $\frac{1280 + 2160}{50}$

68.8