GCSE HIGHER · REVISION MAT 1

Comparing and interpreting data

1 Class A: mean 54, range 30.

Class B: mean 61, range 12.

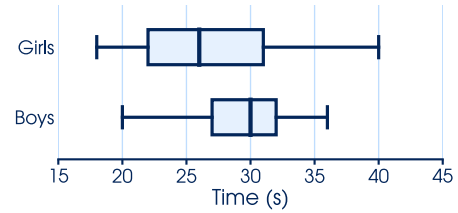
Compare the two classes.

2 Salaries: £18k, £20k, £21k, £22k, £95k.

Which average best represents them? Explain.

3 Explain why you should compare an average and a measure of spread.

4 Compare the times.



5 Explain why a sample of 10 people may not represent a whole town.

6 18 of 60 students sampled cycle to school.

Estimate the number who cycle in a school of 900.

7 Explain why the IQR can be better than the range for data with outliers.

8 Machine A fills bags: mean 501 g, range 12 g.

Machine B: mean 499 g, range 4 g.

Which machine is better? Explain.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Comparing and interpreting data

1 B scored higher on average.

B's scores are more consistent (smaller range).

2 The median (£21k): the mean is pulled up by £95k.

3 Two groups can have the same average but be spread out very differently.

4 Girls have a lower median (26 vs 30): faster on average.

Boys have a smaller IQR (5 vs 9): more consistent.

5 It is too small; results could vary a lot by chance.

6 $\frac{18}{60} \times 900$

270

7 The IQR ignores the extreme values.

8 B: its masses are much more consistent, even though its mean is slightly lower.

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