

Interpreting calculated statistics to compare data

1. 20 light bulbs were tested to see how long they would last. The lifetimes of the bulbs are given below in hours.

1503 1469 1511 1494 1634 1601 1625 1492 1495 1505
1487 1493 1006 1512 1510 1599 1501 1486 1471 1598



The manufacturing company claims that the *average* lifetime of a light bulb is 1500 hours.

Do you agree with their claim?

The mean lifetime of the sample of 20 bulbs is 1499.6 hours a little below their claim.

[3]

2. The stem-and-leaf tables show the marks of a class of pupils in two maths tests.

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$n = 29$; 2|2 represents 22

- (a) For each paper, calculate the median and range.

[4]

Paper 1 Med = 70 Range = 73 Paper 2 Med = 55 Range = 70

- (b) In which paper did the pupils do better?

[1]

Paper 1.

3. Your parents tell you that they have been thinking about the amount of pocket money that they give you. They have been asking other parents and give you a list of the amounts of pocket money your friends receive.

£9 £11 £15 £13 £9 £20 £12 £18 £10

They ask you to say whether you would like to have the mean, the median or the mode of the above figures.

Which one would you choose and why?

[4]

Mean = £13

Mode = £9

Median = £12

Mean as it's the most! [12 marks]