

Learning Objective 1: To be able to use a range of averages to evaluate hypothesis

Learning Objective 2: To find averages from data organised within a two-way table

Part 1: Find the mean, median, mode and range of the following sets of data. Comment on any answers you think might be inappropriate to use as an average.

1,5,8,9,9	2,5,7,3,4,6,8,11,3	15, 16, 18, 12, 22, 18
0.5, 0.6, 22.4, 3.1, 2.2	1,2,3,4,6,5	50, 49, 32, 7, 20000

Part 2: Using data to investigate hypotheses

- 1) Peter believes that he runs quicker than Pauline. Pauline has a mean time of 27 seconds; she has a range of 4.6 seconds and a median of 26.2 seconds.

Peter's times are 25.2, 27.8, 26.8, 28.1, 27.8, 25.5, 24.4, 25.6, 26.9 and 28.1

Investigate whether or not you think Peter is correct

- 2) Lilly has a mean test score of 69 and a range of 12. Her mode score is 73

Carl's test scores are 100, 28, 71, 83, 92, 17 and 99

Investigate the hypothesis that Lilly is better at the subject than Carl

Part 3: Two-way table. This table shows that number of brothers and sisters a class of 30 have

		No of brothers				
		0	1	2	3	4
No of sisters	0	2	5	2	0	1
	1	3	7	0	0	0
	2	0	4	3	0	0
	3	0	0	2	0	0
	4	0	1	0	0	0

- a) What is the mean number of brothers?
- b) What is the mean number of sisters
- c) What is the median number of brothers?
- d) What is the mode number of sisters

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