

Measures of Central Tendency & Spread

Given the data 2, 4, 5, 8, 8, 12, 3, 8, 7, 5
Determine:

- a) The median = 6
- b) The mode = 8
- c) The mean = 6.2

Find the range of each set of data:

- a) 4, 13, 8, 7, 4 = 9
- b) 154, 150.5, 159.3 151.2 = 8.8

Surveys and Sampling

Kai wants to find out how much time students spend using their phone. He uses this question:

How many text messages do you send?

- ☐ 0 - 10 ☐ 10 - 20
☐ 20 - 30 ☐ 30 - 40

Give two things wrong with this question:

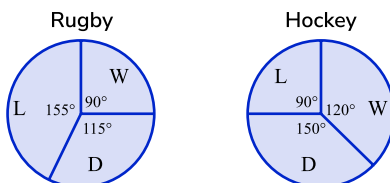
- = Options overlap or No timeframe
- or No option for more than 40

Sev is investigating attitudes towards exercise. He gives a questionnaire to the first twenty men he sees leaving a gym. His sample is biased; give two possible reasons why.

- 1: only men being surveyed
- 2: only one location (needs other location)

Pie Charts

These pie charts show the outcomes of matches for a school's rugby and hockey teams.



The hockey team won 24 matches. How many did they lose? = 18

Which team won more matches? Explain your answer. = Not enough information to tell; we don't know how many rugby matches were played in total.

Tables

Diz counts the number of occupants in 15 cars that park at the funfair.

Here are the results

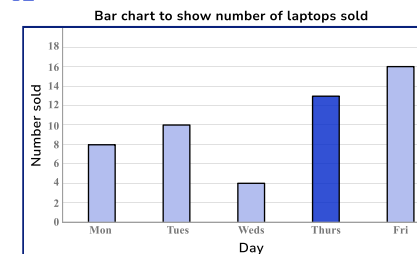
2 3 2 4 3
2 3 1 3 4
4 4 2 3 3

- a) Complete the table.
- b) What is the modal number of occupants in a car? = 3

Number of occupants	Tally	Frequency
1		1
2		4
3		6
4		4

Bar Charts

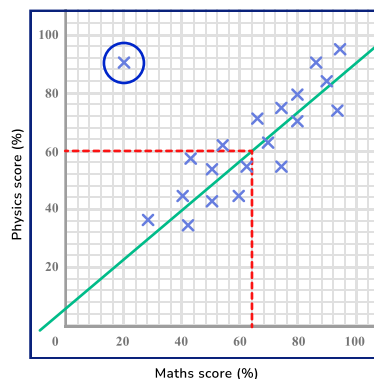
The shop *IT4U* sold 13 laptops on Thursday. Add this information to the bar chart. How many more laptops were sold on Friday than Wednesday? = 12



Scatter Graphs

This scatter graph shows how a group of students performed in class tests.

- a) Circle the outlier.
- b) Describe the correlation between maths score and physics score. = positive correlation
- c) Ignoring the outlier, draw a line of best fit through the data.
- d) Estimate the maths score if a student scored 60% on the physics test. = 60 - 65



Stem and Leaf

This stem and leaf diagram shows the heart rate of some students 10 minutes after completing a fitness test.

- a) How many students took the fitness test? = 15
- b) What is the range of student heart rates? = 38
- c) What is the median heart rate? = 70

KEY
5 | 7 means 57

4	7 9
5	1 2 8
6	9 9
7	0 1 2 4 8
8	3 3 5