Year 9 | Statistics

Comparing data distributions

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Read the explanation and worked example. Show your working; use a calculator only where asked.

What you will practise

• Compare centre, spread, shape and outliers using appropriate displays.

• Explain a method and check the reasonableness of a result.

Useful starting skills: Use the prerequisite operations and representations shown in the worked example.

Use comparative displays with matching scales. Histograms show grouped continuous data; stem-and-leaf and dot plots can retain individual observations.

Describe centre, spread and shape together. A right-skewed distribution has a long high-value tail; bimodal means two distinct peaks, not merely two observations.

Worked example

Compare A:3,4,5,6,7 and B:1,2,5,8,9.

Both means and medians are 5.

Ranges are 4 and 8.

Answer: Same centre; B has greater spread

Try it yourself

Name: _____ Date: _____

1. Find mean, median and range of 2,3,4,5,16.

2. Which tail is long in a right-skewed distribution?

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 6,4,14

Sum 30/5; ordered middle 4; 16-2.

2. The high-value tail

Skew is named for the tail direction.

Curriculum reference: VC2M9ST03; VC2M9ST04

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