

Learner workbook: Averages and spread

Objective: Calculate and interpret averages and range, including grouped estimates.

Calculator condition: Non-calculator core; calculator optional only for checking where labelled.

L047 Averages and spread

Collect

Represent

Analyse

Conclude

Is the sample fair?

What does the diagram show?

What conclusion is valid?

Objective: Calculate and interpret averages and range, including grouped estimates.

Connect & Check

- State the objective and timeline. Retrieve tables charts and time series or a prerequisite. Diagnose a common error before modelling.
- Write one starting question you want answered today.

Choose your route

Route A: Visual Use a diagram, graph, table or annotation first.	Route B: Method Use a worked method, formula or calculation chain first.	Route C: Explain Start with words: what is known, what is changing, and why.
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Share

- Pairs compare methods or predict a result for averages and spread. Ask for a reason, not only an answer.

Present

- Contrast exact data with grouped estimates; explore the effect of an outlier

Apply: supported to independent

Recall: Retrieve the key fact or method needed for averages and spread.

Working: _____

Check/explanation: _____

Core practice: Five numbers have mean 12. Four are 8, 11, 13 and 15. Find the fifth and the range.

Working: _____

Check/explanation: _____

Reasoning: A data set has mean 10. One new value of 100 is added. Must the median increase?

Working: _____

Check/explanation: _____

Exam-style: Solve an exam-style problem involving averages and spread. Show working, include a check and interpret your answer.

Working: _____

Check/explanation: _____

Recall & Review

- Revisit the objective. Learners solve a fresh item without prompts, explain a check, correct one error and record the next practice.

WWW: _____ EBI: _____

Recall & Review: feedback and extension integration

Lesson L047: Averages and spread

Objective: Calculate and interpret averages and range, including grouped estimates.

Timing for a 60-minute lesson

0-7 Connect & Check; 7-14 Share; 14-25 Present/model; 25-44 Apply route choice/practice; 44-52 independent exam-style check; 52-60 Recall & Review, WWW/EBI and next step.

Recall & Review evidence

At the end of the lesson, solve a fresh question without prompts, explain one check, correct one error and record the next practice step.

What Went Well (WWW)

I selected an appropriate statistic or representation and supported my comparison or interpretation with specific evidence from the data.

Even Better If (EBI)

I will quote the relevant values or features, compare like with like and explain what the evidence shows without making an unsupported claim.

Integrated stretch and deep challenge

Stretch: Five numbers have mean 12. Four are 8, 11, 13 and 15. Find the fifth and the range.

Deep challenge: A data set has mean 10. One new value of 100 is added. Must the median increase?

My next-step response
