

**L047 · GCSE Mathematics 1MA1 · 60 minutes**

# The goal

Calculate and interpret averages and range, including grouped estimates.

# Connect & Check

Complete the starter in your workbook. Retrieve the prior skill, then identify one likely error before you use today's method.

## 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.

Compare your method with a partner. Agree on one reliable step and one check.  
Be ready to explain your reasoning, not just your answer.

# Build the method

Use the worked model to contrast exact data with grouped estimates; explore the effect of an outlier. Record the key step and one check that proves the answer.

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Present

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## Choose your route

Choose your route: A - visual model, B - method first, or C - explain first.  
Whichever route you choose, your final answer must prove the lesson objective.

# Guided practice

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

Apply

## L047 Averages and spread

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Conclude

**Is the sample fair?**

**What does the diagram show?**

What conclusion is valid?

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

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# Independent practice

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

Apply

## 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.

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# Exam-style practice

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

# Recall & Review

Complete a fresh question without notes. Check your answer, correct one error if needed, and record the next practice step.

## Before next lesson

Correct one error, record one target and complete the flipped learning task.

# L047 Recall & Review

Averages and spread



## **Fresh evidence: prove the objective**

Solve a new question without prompts. Explain one check, then correct one error in your working.

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

Write the next practice step before you leave. It must test the method again, not simply copy today's example.

# Feedback language

Use the full phrases before the abbreviations.

## What Went Well (WWW)

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

Identify the mathematical method, representation, reasoning or check that improved.

## 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.

Set one precise next-step action and test it on a fresh question.

# Extension route

Choose this route only after the core evidence is secure.

## 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?

Explain your reasoning clearly enough that another learner could check it.