

Learner workbook: Comparing distributions pathway

Objective: Compare distributions using suitable statistics and graphical evidence.

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

L079 Comparing distributions pathway



Objective: Compare distributions using suitable statistics and graphical evidence.

Connect & Check

- State the objective and timeline. Retrieve statistical graphs pathway 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 comparing distributions pathway. Ask for a reason, not only an answer.

Present

- Foundation: mean, median and range.
- Higher: quartiles, interquartile range and box plots

Apply: supported to independent

Recall: Retrieve the key fact or method needed for comparing distributions pathway.

Working: _____

Check/explanation: _____

Core practice: Group A has $Q1=7, Q3=19$; group B has $Q1=10, Q3=17$. Compare IQRs.

Working: _____

Check/explanation: _____

Reasoning: Can one distribution have both a higher median and a larger IQR than another? Explain the practical interpretation.

Working: _____

Check/explanation: _____

Exam-style: Solve an exam-style problem involving comparing distributions pathway. 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 L079: Comparing distributions pathway

Objective: Compare distributions using suitable statistics and graphical evidence.

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 read or constructed the graph accurately, used the scale and axes correctly and linked the relevant gradient, intercept, shape or trend to my conclusion.

Even Better If (EBI)

I will label units and scale clearly, show the calculation or graphical evidence I used and check that the interpretation fits the context.

Integrated stretch and deep challenge

Stretch: Group A has $Q1=7, Q3=19$; group B has $Q1=10, Q3=17$. Compare IQRs.

Deep challenge: Can one distribution have both a higher median and a larger IQR than another? Explain the practical interpretation.

My next-step response
