



Comparative inferences about two populations

GRADE 7 MATH

Name _____

Date _____

Do this on your own — the worked example shows what to do. Gap in MADs before any conclusion; say samples or populations. One skill: **comparative inferences**.

WORKED EXAMPLE

Compare means, divide the gap by the MAD, then conclude. Under 1 MAD supports nothing; above 2 MADs supports a claim about the populations. 'No difference shown' is not the same as 'no difference exists'.

1. Sample A has mean 20 and sample B has mean 26. What is the gap?

FLUENCY

Show your thinking

Answer

2. Sample A is 18, 19, 20, 21, 22. Find its MAD.

APPLICATION

Show your thinking

Answer

3. Express the gap as a multiple of that MAD.

APPLICATION

Show your thinking

Answer

4. What does that let you conclude, and about what — the samples or the populations?

REASONING

Show your thinking

Answer

5. A different sample A is 8, 14, 20, 26, 32, still with mean 20. Find its MAD.

APPLICATION

Show your thinking

Answer

6. Express the same gap of 6 as a multiple of this MAD.

APPLICATION

Show your thinking

Answer

7. What can you conclude now? Be careful with your wording.

REASONING

Show your thinking

Answer

8. Both pairs on this sheet have a gap of 6, yet only one supports a claim about the populations. Write two sentences a newspaper could honestly print, one for each pair.

REASONING

Show your thinking

Answer