Name_____ Date_____ Period_____

LESSON 2-4 · SESSION 2 · PRACTICE · FORM B

Comparing Box Plots

Learning target – I can compare two groups by reading the medians and box widths of their box plots. · 6.SP.B.4

REMEMBER

- Put both box plots on the **same scale**.
- Compare **medians** for center: which group is typically higher, and by how much?
- Compare **box widths** (Q3 − Q1) for spread: the narrower box is more **consistent**.

WORKED EXAMPLE

Trail X: Q1 18, median 20, Q3 22. Trail Y: Q1 19, median 26, Q3 33 (minutes).

Step 1 Medians: 26 − 20 = 6, so Y is typically 6 min longer.

Step 2 Box widths: X is 22 − 18 = 4; Y is 33 − 19 = 14.

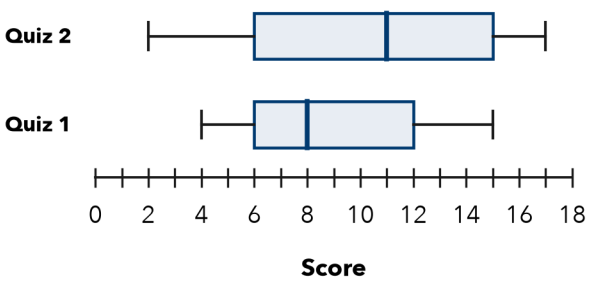
Answer **Y is longer; X is more consistent**

WORDS **center** *(centro)* · **spread** *(dispersión)* · **consistent** *(constante)*

PRACTICE

show your work · label units

1. Two Quizzes. The box plots show scores on two quizzes.



Hint *The line inside each box is the median.*

a. Higher median: _____

b. By how many points: _____

c. Wider box: _____

2. Two Teams. Team Gold points: 35, 41, 38, 47, 44, 49, 43. Team Green points: 30, 45, 36, 52, 40, 33, 50. Complete the table. Which team was more consistent?

Hint *The narrower box is the more consistent team.*

Team	Min	Q1	Median	Q3	Max
Gold					
Green					

More consistent_____

3. **Same Median.** Two plots have a median of 46. Box C runs from 44 to 49. Box D runs from 36 to 58.

   a. Width of box C: ___

   b. Width of box D: ___

4. **More Consistent?** Plot P has Q1 = 31 and Q3 = 40. Plot Q has Q1 = 28 and Q3 = 45. Which middle half is more consistent?

   Hint *Find each box width: Q3 − Q1.*

   ☐ P ☐ Q

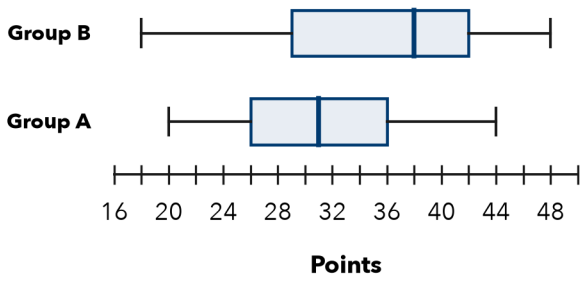
   Widths_____

5. **Equal Spread?** Plot M runs from 10 to 80 with a box from 40 to 55. Plot N runs from 35 to 60 with a box from 44 to 50. Priya says they are equally spread. Is she right? Compare the spans and the boxes.

   ☐ Yes, equal spread ☐ No, M is more spread out ☐ No, N is more spread out

6. **Two Groups.** Which group has the higher median, and by how much?

   Group; difference_____



7. **Matching Boxes.** Plot W runs from 5 to 65. Plot Z runs from 22 to 41. Both boxes run from 25 to 35. Keisha says they show the same spread.

   a. Whole span of W (max − min): _____

   b. Whole span of Z: _____

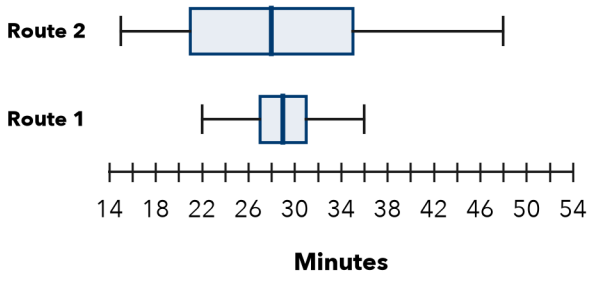
   c. Is Keisha right? Explain.

8. **Two Bus Routes.** Travel times (minutes) for two routes.

   a. Higher median: _____

   b. More predictable (use box widths): _____

   c. A rider must not be late. Which route? Why?



FIND THE ERROR

explain the mistake, then fix it

9. Dmitri's Work. Comparing two box plots, Dmitri wrote: "Plot E has a longer right whisker, so Plot E has the greater median." Explain the mistake.

TEST PRACTICE

choose the best answer

10. A wider box means the middle half of the data is –

A more spread out **B** closer together **C** higher **D** lower

11. A box plot has min 20 and max 45. Its whole span (max − min) is –

A 65 **B** 20 **C** 25 **D** 45

SELF-CHECK CODE

find your answer · copy its letter into that problem's box · spell a math word

19 R	3 C	7 P	65 Q	60 A	Route 2 X	Gold O	Route 1 E	22 M	Green Z

#1b	#2	#3b	#6	#7a	#7b	#8b

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #___