Name_____ Date_____ Period_____

LESSON 2-6 · SESSION 2 · PRACTICE · FORM A

Comparing Distributions

Learning target – I can compare two distributions using the median and the interquartile range together. · 6.SP.B.5d

REMEMBER

- **Median** = center: which group is typically higher or lower?
- **IQR** = spread: which group is more **consistent** (smaller IQR)?
- Use **both** to decide. Ask what is better here: a shorter wait or a higher score?

WORKED EXAMPLE

Line 1: median 8 min, IQR 7. Line 2: median 13 min, IQR 12.

Step 1 Center: 13 − 8 = 5, so Line 1 is typically 5 min shorter.

Step 2 Spread: 7 < 12, so Line 1 is steadier.

Answer **Join Line 1: shorter and steadier**

WORDS **center** *(centro)* · **spread** *(dispersión)* · **distribution** *(distribución)*

PRACTICE

show your work · label units

1. Two Lunch Lines. Wait times (min). Line 1: 3, 5, 7, 8, 10, 12, 15. Line 2: 2, 4, 11, 13, 14, 16, 20.

Hint *Lower median = shorter wait. Smaller IQR = steadier.*

	Median	Q1	Q3	IQR
Line 1				
Line 2				

Which to join_____

2. Two Carrot Plots. Plot A lengths (cm): 10, 12, 14, 15, 16, 17, 19. Plot B: 5, 11, 14, 15, 20, 23, 27.

a. Median A: __ **b.** IQR A: __ **c.** Median B: __ **d.** IQR B: __

3. Two Months. Month 1: median 120 sales, IQR 40. Month 2: median 135, IQR 12.

a. Typically higher: ____

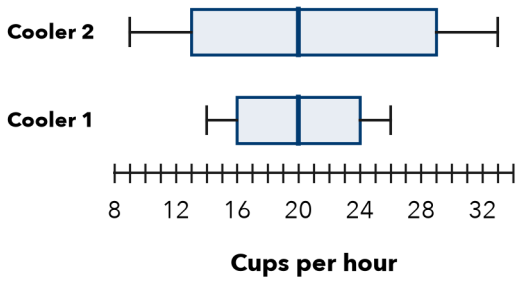
b. Steadier: ____

4. Nikhil's Claim. Set E: median 60, IQR 30. Set F: median 55, IQR 8. Nikhil says Set E wins in every way. Is Nikhil right?

Hint *A higher median says nothing about spread.*

☐ Right ☐ Not right

5. Two Water Coolers. The box plots show cups served per hour.



Hint *Read the box edges for Q1 and Q3.*

a. Median of 1: _____

b. IQR of 1: _____

c. Median of 2: _____

d. IQR of 2: _____

e. Compare them:

6. Coach's Choice. Team 1: median 58 points, IQR 20. Team 2: median 52, IQR 5. The coach wants the team most likely to score close to its usual total.

☐ Team 1 ☐ Team 2

Why_____

7. Two Stores. Store P: median 46 sales, IQR 9. Store Q: median 52, IQR 21. Write a comparison that uses both measures.

_____

_____

8. Two Study Methods. Method 1 quiz scores: median 78, IQR 6. Method 2: median 83, IQR 24.

a. Higher typical score: _____

b. More dependable (use both IQRs): _____

c. Pick one method for the whole class. Argue using both measures.

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Kofi's Work. Kofi wrote: "Group 1 has the larger median, so Group 1 must have the larger IQR too." Explain the mistake.

_____

_____

TEST PRACTICE

choose the best answer

10. To compare two skewed distributions fully, report the –

A median and IQR **B** median only **C** greatest values **D** number of values

11. Set A: median 60, IQR 5. Set B: median 60, IQR 18. Set A is –

A higher **B** more consistent **C** more spread out **D** lower

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

Month 2 T	**12 N**	**5 E**	**Month 1 Z**	**16 R**	**Method 2 S**	**Line 2 Q**	**8 E**	**22 X**	**Line 1 C**

#1	#2b	#2d	#3a	#5b	#5d	#8a

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