4.4 Comparing Distributions

NOTES

ALGEBRA

Write your questions here!

Parallel (Double) Boxplots: plotting two boxplots on the same number line to compare them.

Double (Back to Back) Stemplots: uses one stem with one data set on the left and a different data set on the right.

To compare distributions, we can use SOCS to help us:

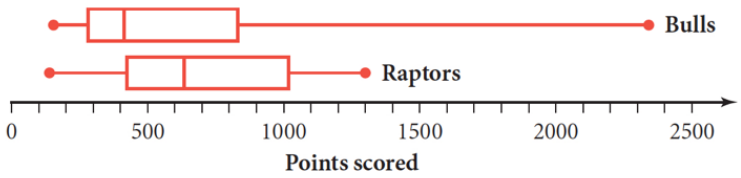
S : _____

O: _____

C: _____

S : _____

Consider the following parallel boxplots comparing the Chicago Bulls and Toronto Raptors from the 1997-1998 season. Compare the two distributions.



S
O
C
S

SMP #3

_____

_____

_____

_____

Compare the pulse rates in bpm of Algebra 1 student before and after taking the 2.5 Mastery Check:

pulse rate before		pulse rate after
9 8 8 8	6	
8 6 6 4 1 1 0	7	
8 8 6 2	8	6 7 8 8
6 0	9	0 2 2 4 5 8 9 9
4	10	0 4 4
0	11	8
	12	4 4
	13	
	14	6

Key: where 2 | 8 | 6 means 82 bpm before and 86 bpm after

_____

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_____

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_____

If you need to write down the steps from the calculator, do it below:

Everyone knows that Bean loves his scooter. Brust wants to know if Bean drives his scooter faster on the way TO WORK, or on the way home FROM work. He decided to record his speed several times over the next month. His results are:

Bean driving TO WORK (km/h)

43	42	44	39	43
45	43	45	42	45
46	44	48	44	47
63	46	48	45	

Bean driving home FROM WORK (km/h)

51	45	44	41	41
48	47	35	40	42
48	47	36	38	43
48	48	37	37	48

Create a double stemplot and parallel boxplots. Use your calculator to help you. Decide which plot display is the best for this data. Then, compare the distributions.

SUMMARY: