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Using back-to-back stem-and-leaf displays to compare data sets

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As part of its interview process, an employment agency tests the client's typing speed. The stem-and-leaf display below shows the results for the most recent clients, 17 of whom received a job offer and 16 of whom did not. Answer the questions that follow.

Typing speeds (words per minute)		
Offer		No offer
8 8 4	3	3 8 4 9
7 6 3 3 0	4	0 0 2 5 6 9
8 9 5 4 4 0	5	0 2 2 2 7
8 8 4	6	3
Key: 34 ← 4 3 3 → 33		

(a) What were the ranges of typing speeds for the two groups?

Offer
 No offer

(b) Which group had the higher median typing speed?

☒ Offer ☐ No offer ☐ The medians were the same

(c) Which group had more typing speeds in the 30s?

☐ Offer ☒ No offer ☐ Each had the same

offer: 34, 38, 38, ..., 64, 68, 68
 no offer: 33, 34, 34, 39, ..., 63

(A) Range = max - min
 offer: $68 - 34 = 34$
 no offer: $63 - 33 = 30$

(B) Median = middle number
 offer has 17 total #'s so the 9th # is middle
 no offer has 16 total # so the middle is between the 8th & 9th #
 $\frac{45 + 46}{2} = 45.5$

(C) more in the 30's
 offer: 3 #'s
 no offer: 4 #'s

Note: The Solve feature is not available to stu

Explanation Try Another Check

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As part of a survey, 17 college graduates and 20 non-graduates were asked, "How many hours did you spend at your job last week?" The results are shown in the stem-and-leaf display below. Answer the questions that follow.

Number of hours at work		
Graduates		Non-graduates
8 2	2	4 3 6 6 7
2 1 1	3	1 1 4 4 8
7 7 6 4 1 1 0 0	4	0 2 2 4 4 5 8 7 9
1 7 4 2	5	3
Key: 22 ← 2 2 1 → 21		

(a) What were the ranges for the two groups?

Graduates
 Non-graduates

(b) Which group had the higher median number of hours?

☒ Graduates ☐ Non-graduates ☐ The medians were the same

(c) Which group had more responses in the 50s?

☒ Graduates ☐ Non-graduates ☐ Each had the same

Graduates: 22, 28, 31, 31, 32, ..., 52, 54, 57, 57
 Non-graduates: 21, 23, 26, 26, 27, ..., 47, 49, 53

(a) Range: Max - min
 Graduates = $57 - 22 = 35$
 Non-Graduates = $53 - 21 = 32$

(b) Median = middle #
 Graduates = 17 #'s so the middle # is the 9th #
 44
 Non-graduates = 20 #'s so the middle # is between the 10th and 11th #
 $\frac{38 + 40}{2} = 39$

(c) Graduates: 52, 54, 57, 57 (4)
 Non-graduates: 53 (1)