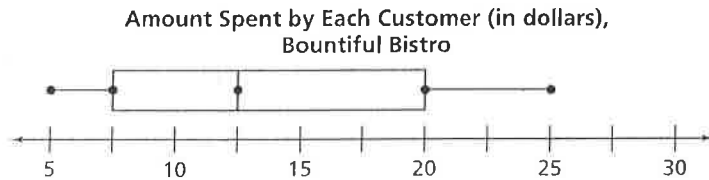
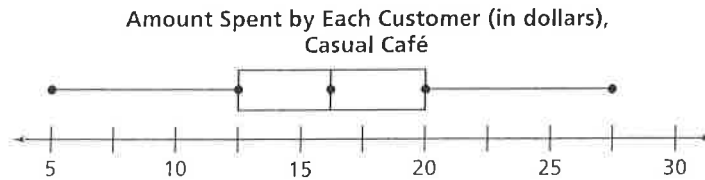


For exercises 1 – 5, use the data displayed in the box plots below.



1. Find the following for each set of data.

	Casual Café	Bountiful Bistro
Median	\$16	\$12.50
Range	$27.50 - 5 = \$22.50$	$25 - 5 = \$20$
Interquartile range	$20 - 12.5 = \$7.50$	$20 - 7.50 = \$12.50$

2. Use the medians of the data to compare the amounts spent by customers at each restaurant.

Customers at Casual Café generally spent more than customers at Bountiful Bistro.

3. Use the ranges and interquartile ranges of the data to compare how the amounts spent by customers at each restaurant vary. At Casual Café, the difference between the least and greatest amounts is greater than at Bountiful Bistro, but the data are more clustered around the median.

4. Use the symmetry in each box plot. Compare how the amounts spent by customers at each restaurant are distributed. The data for Casual Café are symmetric, so the amounts spent are evenly distributed. The data for Bountiful Bistro are not symmetric, so those amounts are less evenly distributed.

5. Use the evidence of clusters or no clusters to compare the amounts spent by customers at each restaurant. The data for CC show clustering about the median, meaning more customers spend close to the median than customers at BB. The data for BB show a cluster between \$5 and \$7.50; 25% of the purchases at this restaurant are in this range. For exercises 6 – 9, use the data displayed in the bar graphs below.



6. Compare the numbers of days the restaurants are open. Explain how the graphs show this. CC is open 6 days each week and BB is open 7 days. In the graph for CC, there are zero customers for Monday.

7. **Multiple choice:** Which statement is true about the mean numbers of customers during days that each restaurant is open? $BB\text{ mean} = 660 \div 7 = 94.3$ $94 - 85 \approx 10$
 $CC\text{ mean} = 510 \div 6 = 85$

- a. the mean number of daily customers at bountiful Bistro is about 20 more than at the Casual café.
- b. The mean number of daily customers at Bountiful Bistro is about 10 more than at the Casual Café.
- c. The mean number of daily customers at the restaurants is about the same.
- d. The mean number of daily customers at Bountiful Bistro is about 10 less than at the Casual Café.

8. Use any peaks in the data to compare the numbers of customers at the restaurants. Both restaurants show peaks of numbers on Saturdays.

9. Use any symmetry or lack of symmetry to compare the distribution of data for the restaurants.