

Lesson 3: Describing Quantitative Data: Shape

Preparation

Solutions

Please note that the steps show rounded numbers, but that the final answers to the problems are calculated without rounding.

Problem	Part	Solution
1	Mean	It is the adding up the observed data and dividing by the number of observations in the data set.
1	Median	The median is the middle value in a sorted data set
1	Mode	The most frequently occurring value
2	Company A	Mean: 21.276 Median: 13.433 Mode -48.837209
2	Company B	Mean: 33.482 Median: 20.838 Mode -62.837689
2	Company C	Mean: 41.122 Median: 25.558 Mode -71.050584
2	Company D	Mean: 0.706 Median: 1.892 Mode -44.416873
2	Company E	Mean: -1.084 Median: -3.796 Mode -39.686099

Problem	Part	Solution
<p>The figure displays five histograms, labeled A through E, each representing a different data set. The x-axis for all histograms is 'value', ranging from -100 to 250 with major ticks at -100, 0, 100, and 200. The y-axis is 'count', ranging from 0 to 15 with major ticks at 0, 5, 10, and 15. Histogram A is centered at 0, with a peak count of 8. Histogram B is centered at 50, with a peak count of 5. Histogram C is centered at 100, with a peak count of 4. Histogram D is centered at 0, with a peak count of 12. Histogram E is centered at 0, with a peak count of 9.</p>		
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4	-	Answers will vary but should talk about shape, center, and spread of the different graphs and data sets.
5	-	Answers may vary, students should choose a company and justify why. They will probably choose B or C, because they have the highest means.