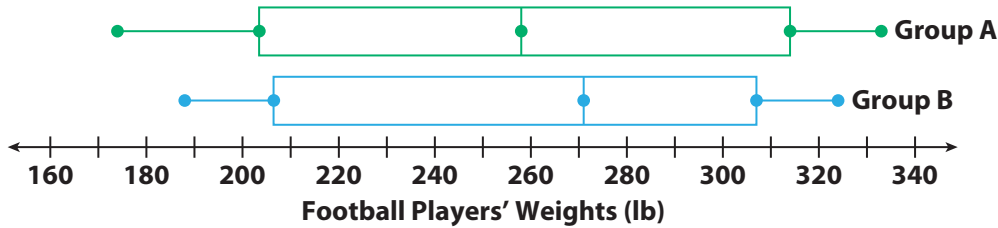3. The box plots show the distribution of weights in pounds of two different groups of football players. Compare the shapes, centers, and spreads of the box plots.

Football Players' Weights (lb)

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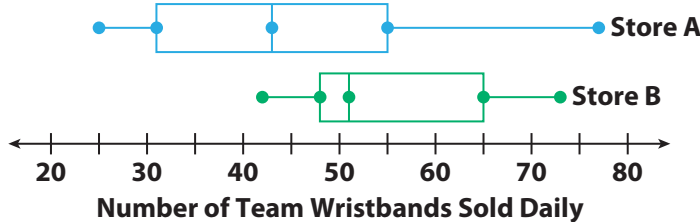
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Box Plots with Different Variability

You can compare box plots with greater variability, where there is less overlap of the median and interquartile range.

EXAMPLE 2 Real World   TEKS 7.12.A

The box plots show the distribution of the number of team wristbands sold daily by two different stores over the same time period.

Number of Team Wristbands Sold Daily

A Compare the shapes of the box plots.

Store A's box and right whisker are longer than Store B's.

B Compare the centers of the box plots.

Store A's median is about 43, and Store B's is about 51. Store A's median is close to Store B's minimum value, so about 50% of Store A's daily sales were less than sales on Store B's worst day.

C Compare the spreads of the box plots.

Store A has a greater spread. Its range and interquartile range are both greater. Four of Store B's key values are greater than Store A's corresponding value. Store B had a greater number of sales overall.