**Lesson 11-6**

Example 1 Construct a Box-and-Whisker Plot
NATIONAL PARKS Use the data in the table to construct a box-and-whisker plot.

| Type of Area	Acreage
Battlefield Site	1
Historic Sites	37,557
Historical Parks	167,208
Lakeshores	228,847
Memorials	8,532
Reserves	33,431
Rivers	424,630
Scenic Trails	233,608
Seashores	594,854
Parkways	174,917

Step 1 Draw a number line that includes the least and greatest number in the data.

Step 2 Mark the extremes, the median, and the upper and lower quartile above the number line. Since the data have an outlier, mark the least value that is not an outlier.

Step 3 Draw the box and whiskers.

Source: www2.nature.nps.gov

Acreage of National Parks
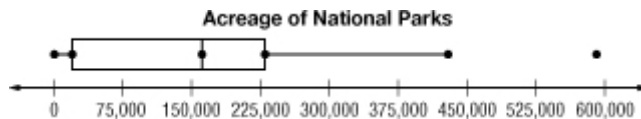
Example 2 Interpret Data
FOOD What does the length of the box-and-whisker plot below tell you about the data?

Total Fat in Submarine Sandwiches
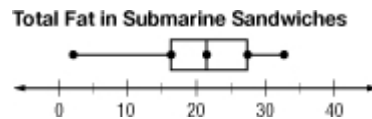
The median line seems to divide the box into two approximately equal parts, so data in the second and third quartiles are similarly spread out. The whisker at the left is longer than the other parts of the plot, so the data in the first quartile are more spread out.

Example 3 Compare Data
CAMP Refer to the double box-and-whisker plot below. Were about half the men and women in the same age group? Justify your reasoning.

Ages of Ford County Camp Counselors

Men

Women

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
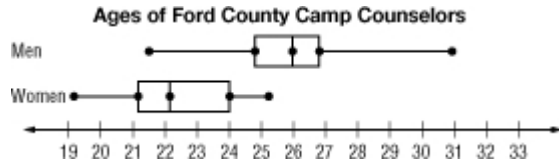
The youngest age of the men was 21.5 years, and the median was 26 years. So half of the men were 21.5 to 26 years old.

The median age of the women was 22 years, and the oldest age was 25. So half of the women were 22 to 25 years old.

So, about half the men and women were in the same age group.