# 12.3 Box – and – Whisker Plots

# Vocabulary

**Box Plot (Box & Whisker)-** a display that divides data into four parts(quartiles)

**Median (Q2) –** The middle value in a data set

**Lower Quartile (Q1) –** The median of the lower half of data values

**Upper Quartile (Q3) –** The median of the upper half of data values

**Range –** The difference of the maximum and minimum value in a data set

**Interquartile Range (IQR) –** Q3 minus Q1

# Steps

1) Write the data values in increasing order
2) Find the median
3) Find the lower and upper quartiles of the data
4) Draw a number line that includes the minimum and maximum data value
5) Plot the minimum, lower quartile, median, upper quartile, and the maximum below the number line
6) Draw a box from the lower quartile to the upper quartile
7) Draw a vertical line through the box at the median
8) Draw “whiskers” from the box to the minimum and maximum

# Guided Practice

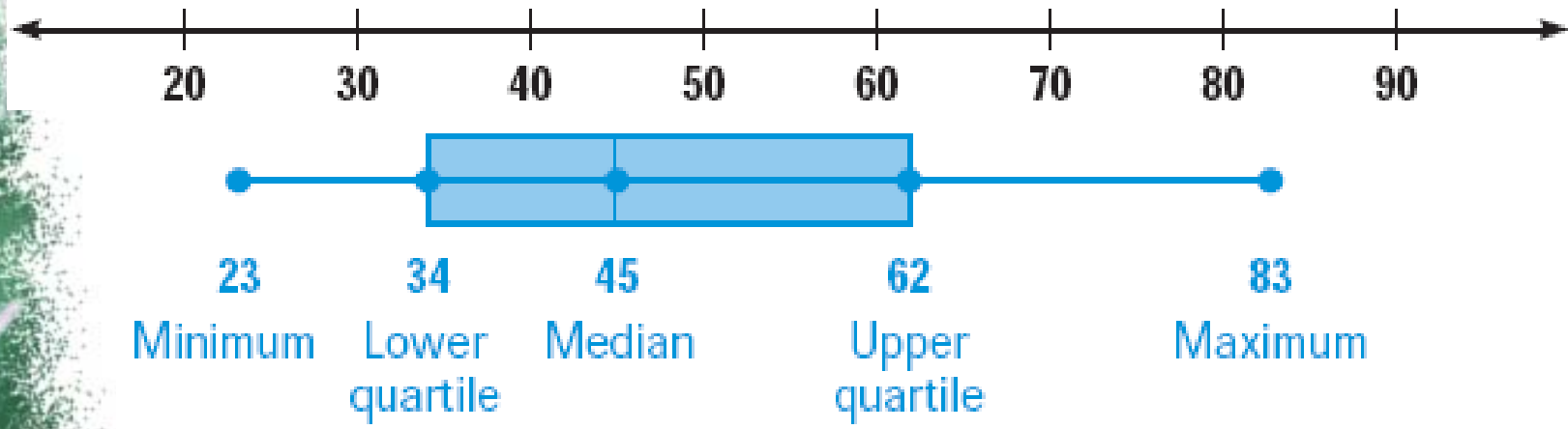
{ 62, 23, 27, 56, 52, 34, 42, 40, 68, 45, 83 }

23, 27, 34, 40, 42, 45, 52, 56, 62, 68, 83

Lower Quartile: 34

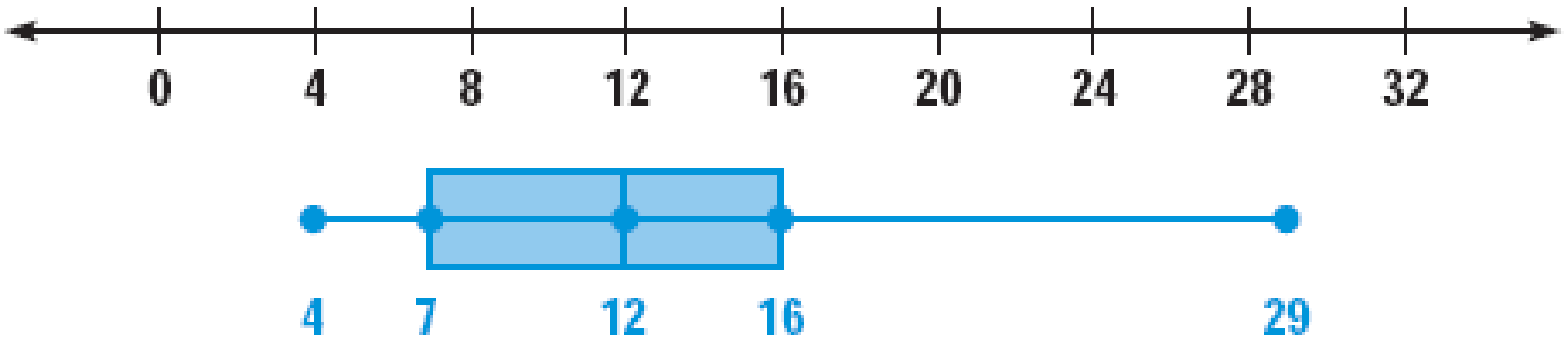
Upper Quartile: 62

Median: 45



# Independent Practice

Use the box-and-whisker plot to answer the following:




Minimum Value: 4

Maximum Value: 29

Lower Quartile: 7

Upper Quartile: 16

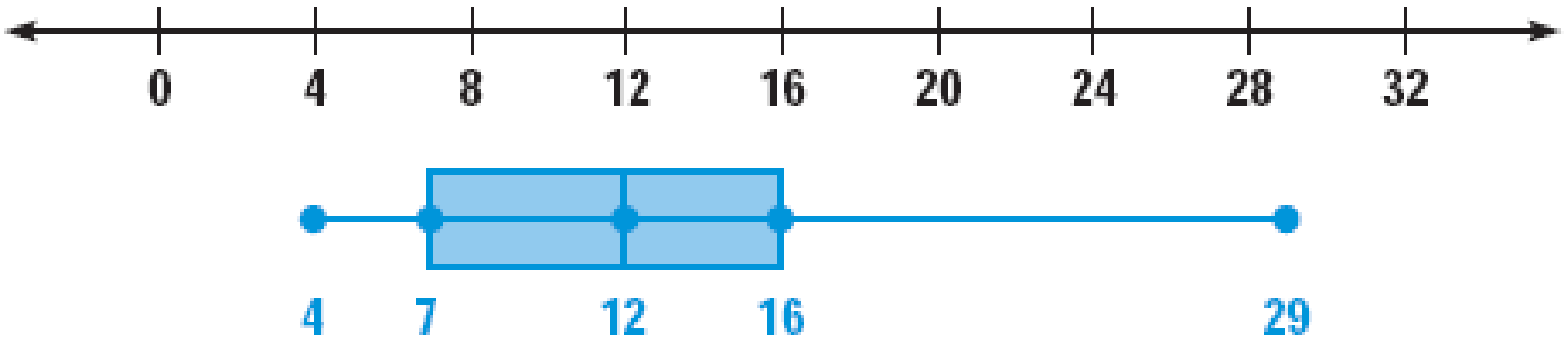
Median: 12

Range: 25

IQR: 9

# Independent Practice

Use the box-and-whisker plot to answer the following:




What percent of the scores were between 7 and 16?

50%

Half of the scores are higher than what number?

12