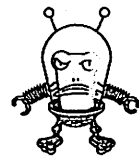


"Invasion of Aliens!"
Box and Whisker Plots



Used to organize large amounts of data into equal groups.

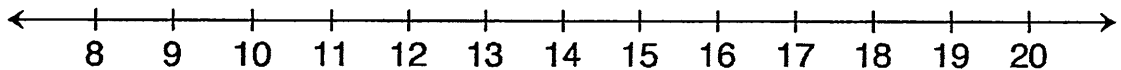
When aliens (data) invade, they hover in their UFO (box and whisker plot).

Parts of the hovercraft (BWP)

- Lower extreme-
- Upper extreme-
- Median-
- Upper Quartile-
- Lower Quartile-

ODD DATA SET

8, 8, 8, 8, 9, 10, 10, 11, 12, 13, 14, 16, 18, 20, 20



How many "aliens" or data numbers are in each quartile?

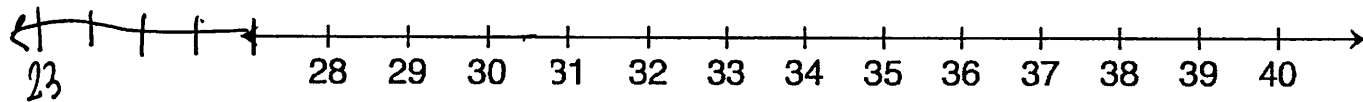
Percentages:

$$\frac{\text{aliens (numbers) per quartile}}{\text{total data points}} =$$

Each quartile has about _____ % of your data.

EVEN DATA SET

23, 26, 28, 28, 30, 31, 34, 36, 36, 40



How many "aliens" or data numbers are in each quartile?

Percentages:

$$\frac{\text{aliens (numbers) per quartile}}{\text{total data points}} =$$

Each quartile has about _____ % of your data.

Practice

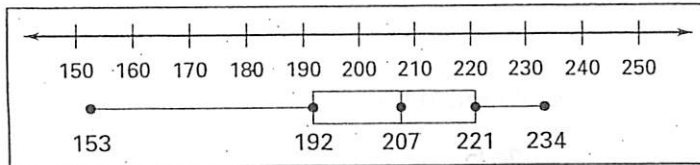
Complete the statement.

1. The least data value of a data set is the _____ extreme and the greatest data value of a data set is the _____ extreme.

Make a box-and-whisker plot of the data.

2. 15 mm, 19 mm, 25 mm, 34 mm,
28 mm, 32 mm, 16 mm, 26 mm
3. 4 h, 7 h, 11 h,
3 h, 18 h, 23 h
4. 260 g, 170 g, 163 g, 242 g,
309 g, 315 g, 115 g, 207 g
5. 62 mph, 71 mph, 45 mph, 25 mph,
32 mph, 57 mph, 52 mph

The box-and-whisker plot shows the number of seconds a song on a CD lasts. Find the value.



6. range
7. median
8. lower quartile
9. upper quartile
10. lower extreme
11. upper extreme