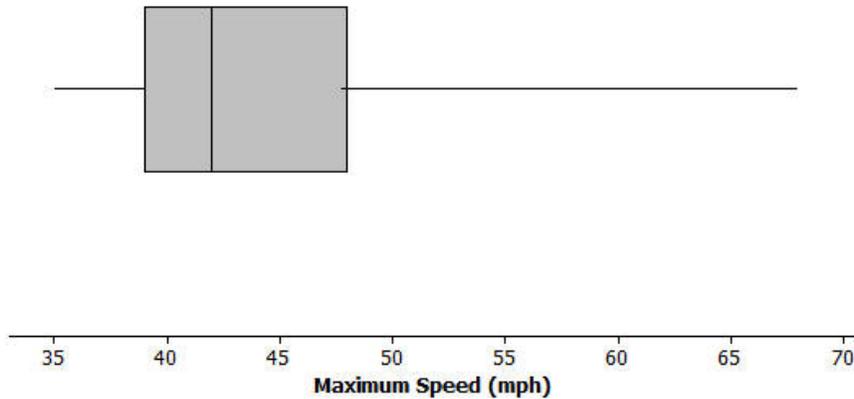


1. The box plot below summarizes the maximum speeds of certain kinds of fish.



- a. Estimate the 5-number summary from the box plot.

Min = \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

- b. The fastest fish is the sailfish at 68 mph followed by the marlin at 50 mph. What does this tell you about the spread of the fish speeds in the top quarter of the plot?
- c. Use the 5-number summary and the IQR to **write at least 2 sentences describing** the speeds of the fish. (Hint :  $IQR = UQ - LQ$ )
2. Suppose you knew that the interquartile range for the number of hours students spent playing video games during the school week was 10. Which of the following statements best describes the information given. Explain your reasoning.
- a. About half of the students played video games for 10 hours during a school week.
- b. All of the students played at least 10 hours of video games during the school week.
- c. About half of the class could have played video games from 10 to 20 hours a week or from 15 to 25 hours.

3. The speeds for the fastest dogs are given in the table below.

Breed	Speed (mph)
Greyhound	45
African Wild Dog	44
Saluki	43
Whippet	36
Basanji	35
German Shepherd	32
Vizsla	32
Doberman Pinscher	30
Irish Wolfhound	30
Dalmatian	30
Border Collie	30
Alaskan Husky	28
Giant Schnauzer	28
Jack Russell Terrier	25
Australian Cattle Dog	20

a. Find the 5-number summary for this data set and use it to create a **box plot** of the speeds.

b. Why is the median not in the center of the box?

Data Source: <http://www.vetstreet.com/our-pet-experts/meet-eight-of-the-fastest-dogs-on-the-planet>; <http://canidaepetfood.blogspot.com/2012/08/which-dog-breeds-are-fastest.html>

4. **Solve** the equation. Show your work. **Check** your solution.

$$20 = -2(40 - p)$$