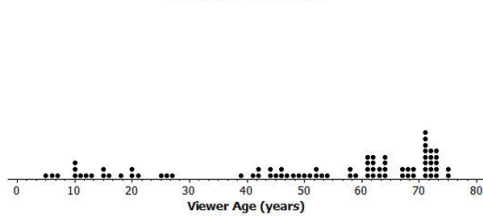


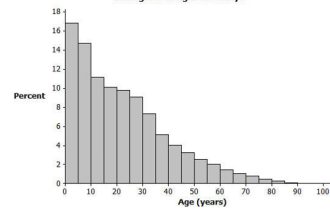
**Dot plots:** A plot of each data value on a scale or number line.

Dot Plot of Viewer Age



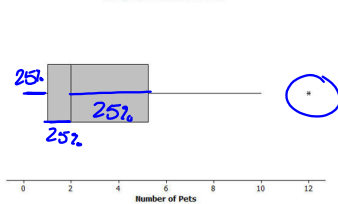
**Histograms:** A graph of data that groups the data based on intervals and represents the data in each interval by a bar.

Histogram of Ages for Kenya



**Box plots:** A graph that provides a picture of the data ordered and divided into four intervals that each contains approximately 25% of the data.

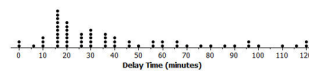
Boxplot of Number of Pets



Transportation officials collect data on flight delays (the number of minutes a past the scheduled departure time that a flight takes off).

Consider the dot plot of the delay times for sixty BigAir flights during December 2012.

Dot Plot of December Delay Times



1. What do you think this graph is telling us about the flight delays for these sixty flights?

*Most delays between 10-40 mins.*

2. Can you think of a reason why the data presented by this graph provides important information? Who might be interested in this data distribution?

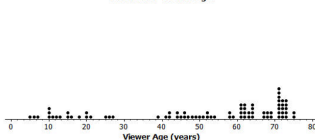
*Passengers, Airline Frequent Flyers*

3. Based on your previous work with dot plots, would you describe this dot plot as representing a symmetric or a skewed data distribution? (Recall that a skewed data distribution is not mound shaped.) Explain your answer.

*Skewed to the left*

A random sample of eighty viewers of a television show was selected. The dot plot below shows the distribution of the ages (in years) of these eighty viewers.

Dot Plot of Viewer Age



4. What do you think this graph is telling us about the ages of the eighty viewers in this sample?

*Mostly older viewers.*

5. Can you think of a reason why the data presented by this graph provides important information? Who might be interested in this data distribution?

*TV Company Producers, Advertisers*

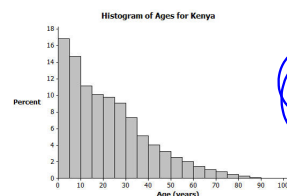
6. Based on your previous work with dot plots, would you describe this dot plot as representing a symmetric or a skewed data distribution? Explain your answer.

*Skewed to the right*

The following histogram represents the age distribution of the population of Kenya in 2010.

7. What do you think this graph is telling us about the population of Kenya?

*50% is under 20*



8. Why might we want to study the data represented by this graph?

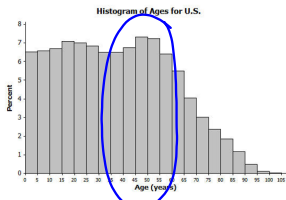
*① They reproduce quickly  
② Dying fast.*

*Help 1: sex expectancy.*

9. Based on your previous work with histograms, would you describe this histogram as representing a symmetrical or a skewed distribution? Explain your answer.

*Skewed to the left.*

The following histogram represents the age distribution of the population of the United States in 2010.



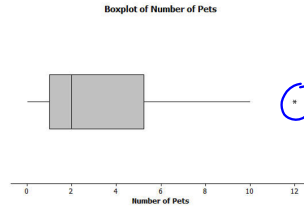
10. What do you think this graph is telling us about the population of the United States?

Most 0-5 years.  
Few in their hundreds.

11. Why might we want to study the data represented by this graph?

Education  
Life Expectancy  
Life Insurance

Thirty students from River City High School were asked how many pets they owned. The following box plot was prepared from their answers.



12. What does the box plot tell us about the number of pets owned by the thirty students at Rivers City High School?

25% 1-2 pets

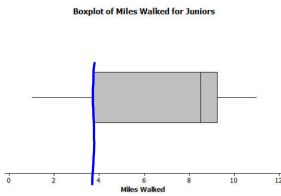
Median - 2

50% - 1-5 pets

13. Why might understanding the data behind this graph be important?

Working w/ animals  
is important  
to some

Twenty-two juniors from River City High School participated in a walkathon to raise money for the school band. The following box plot was constructed using the number of miles walked by each of the twenty-two juniors.



14. What do you think the box plot tells us about number of miles walked by the twenty-two juniors?

50% - 4-9 miles

Median  $\approx$  8.5

15. Why might understanding the data behind this graph be important?

Plan for next year  
Punish lazy's  
Success or Failure.