

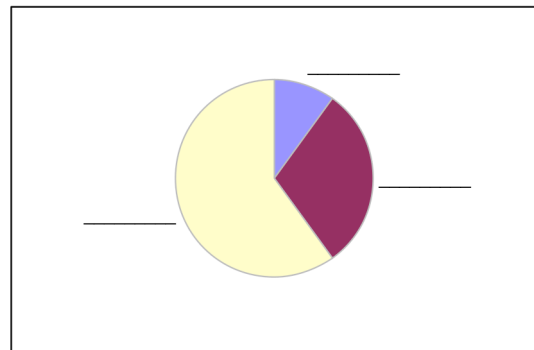
1. Below is some information about the tallest buildings in the world (completed by 2012).

Building	Country	Height, m	Floors	Use	Year built
Burj Khalifa	United Arab Emirates	828	163	Mixed	2010
Makkah Royal Clock Tower Hotel	Saudi Arabia	601	120	Hotel	2012
Taipei 101	Taiwan	508	101	Office	2004
Shanghai World Financial Center	China	492	101	Mixed	2008
International Commerce Center	China	484	108	Mixed	2010
Petronas Tower 1	Malaysia	452	88	Office	1998
Zifeng Tower	China	450	89	Mixed	2010
Willis (Sears) Tower	United States	442	108	Office	1974
Kingkey 100	China	442	100	Mixed	2012
Guangzhou International Finance Center	China	438	103	Mixed	2010

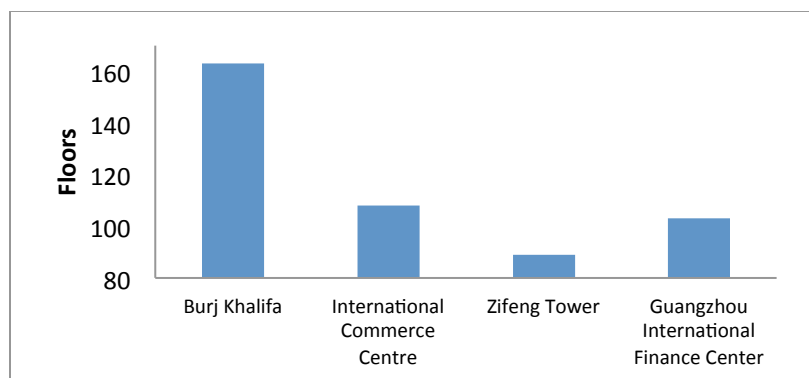
(a) What are the individuals in this data set?

(b) Identify the variables that were recorded, and indicate whether each one is categorical or quantitative.

(c) Here is a pie chart for the distribution of the variable “Use.” Fill in the blanks with the appropriate values of the variable.



(d) Below is a graph showing the total number of floors for the four buildings completed in 2010. What’s wrong with the way the information is presented in this graph?



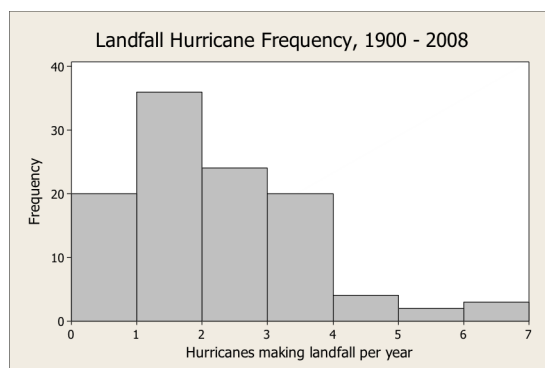
1. Literary scholars sometimes use the distribution of word lengths in a work as a test of authenticity. Here are the word lengths for the first 25 words on a randomly-selected page from Toni Morrison's *Song of Solomon*.

2 3 4 10 2 11 2 8 4 3 7 2 7
5 3 6 4 4 2 5 8 2 3 4 4

- (a) Make a dotplot of these data.

- (b) Find the mean and median of this distribution. What is the shape?

2. The histogram below shows the number of hurricanes making landfall in the United States from 1900 to 2008. Describe the center and shape of the distribution.



Solutions

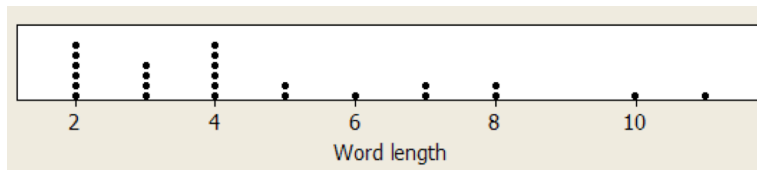
Quiz 1.1A

1. (a) The buildings are the individuals. (b) Categorical variables: Country, Use; Quantitative variables: Height, Floors, Year built. (c) Clockwise from top, the blanks are Hotel, Office, and Mixed. (d) Because the vertical scale starts at 80 instead of 0, the differences in floors are exaggerated, making it appear that the Burj Khalifa has many times more floors than the Zifeng tower.

Quiz 1.2A

1. (a)

Letters Per Word in *Song of Solomon*



(b) The distribution is skewed to the right because the mean of 4.6 letters per word is greater than the median of 4 letters per word.

2. The distribution is skewed right because the peak is to the left and the tail is to the right, which tells us that the mean number of hurricanes making landfall per year is greater than the median number of hurricanes per year.