

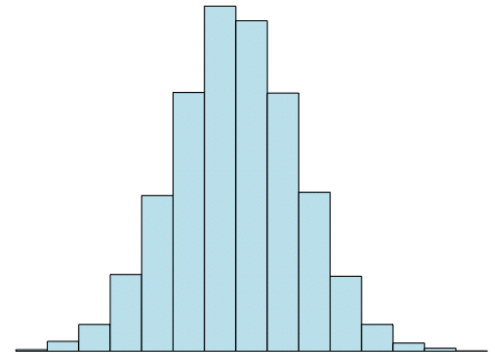
Describing the Shape

Symmetry: A distribution is symmetric if the right and left sides of the histogram are *approximately* mirror images of each other.

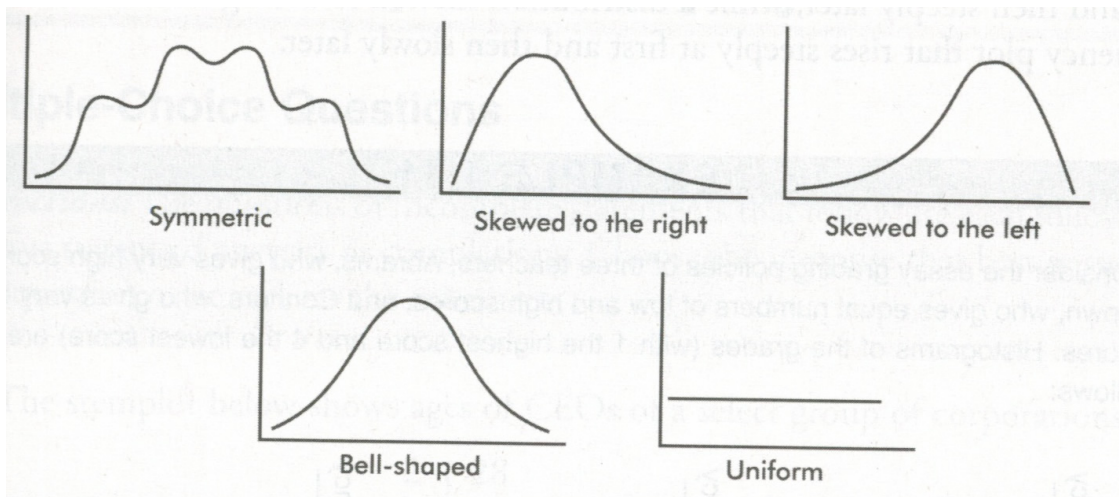
Gaps: holes in the data

Clusters: are the data grouped? Is there a large group that appears unexpected?

Modes: 0, 1 (unimodal), or 2 modes (bimodal)?



Skewness

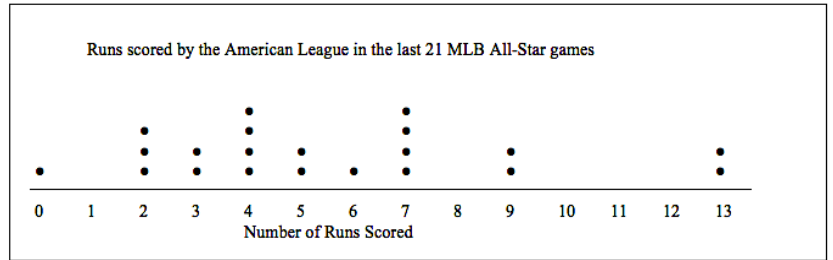


Describe the distribution:

Value	1	2	3	4	5
4	█				
5	█	█	█		
6	█	█	█	█	
7	█				
8	█	█	█		
9	█				
10					
11	█				
12					
13	█				

Graph Name	Example	Purpose / Features
Dot-plot	How many shoes do you own (boys in red, girls in blue)?	Things to remember <ul style="list-style-type: none"> ✓ You only need a properly labeled horizontal axis ✓ You need to be neat ✓ Title the graph ✓ Each dot represents a count of 1 ✓ Works well with a small data set

Turn the dot-plot into a data set:



Make a dot-plot for the data:

How good was the 2004 U.S. women's soccer team? With players like Brandi Chastain, Mia Hamm, and Briana Scurry, the team put on an impressive showing en route to winning the gold medal at the 2004 Olympics in Athens. Here are data on the number of goals scored by the team in 34 games played during the 2004 season:²⁰

3 0 2 7 8 2 4 3 5 1 1 4 5 3 1 1 3
 3 3 2 1 2 2 2 4 3 5 6 1 5 5 1 1 5

Graph Name	Example	Purpose / Features
Stem-plot	How many shoes do you own (boys in red, girls in blue)?	Things to remember <ul style="list-style-type: none"> ✓ Separate each piece of data into a stem (all but the rightmost digit) and a leaf (the final digit) ✓ Write the stems vertically in increasing order from top to bottom. ✓ Be very neat and make sure you leave the same amount of space in between leaves. ✓ Title your graph ✓ Include a key identifying what the stem and leaves represent. ✓ Works well with a small data set
Two-sided Stem-plot		

Turn the stemplot into a data set

American League Home Runs	
3	5
4	0 3 9
5	1 4 7 8 8
6	4 8 8
7	5 7
Key 3 5 represents 35 home runs hit	

The stemplot shows the percent of residents 65+ for all 50 states and DC.

Questions

1. What is the percent for the state with the greatest percent of residents over 65?
2. The low outlier is Alaska. What is the percent for Alaska?
3. What percent of the states have fewer than 11% of residents who are over 65

Percent of residents aged 65+

6	8
7	8
8	8
9	79
10	08
11	15566
12	012223444457888999
13	01233333444899
14	02666
15	23
16	8

Key: 8 | 8 is 8.8%