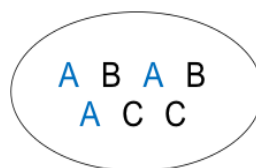
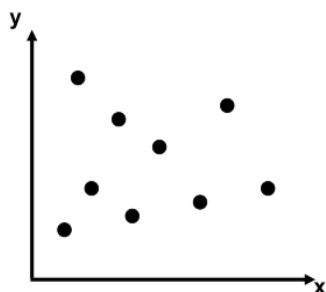
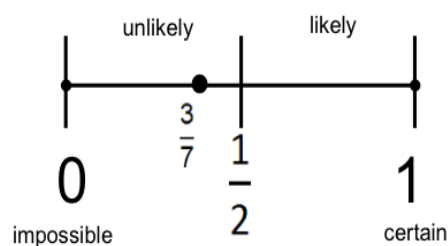


no pattern exists between  
the x- and y-coordinates



$$P(A) = \frac{3}{7}$$



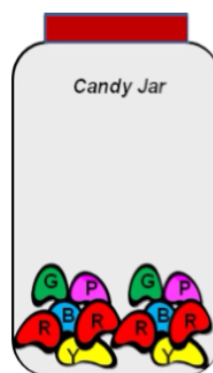
$$P(\text{green}) = \frac{3}{8}$$

$$P(\text{yellow}) = \frac{2}{8} = \frac{1}{4}$$

$$P(\text{green and yellow}) =$$

$$P(\text{green}) \cdot P(\text{yellow}) = \frac{3}{8} \cdot \frac{1}{4} = \frac{3}{32}$$

What is the probability of  
getting a **red** jelly bean on  
first pick and then without  
replacing it, getting a  
**green** jelly bean on the  
second pick?



$$P(\text{red}) \cdot P(\text{green after red}) =$$

$$\frac{4}{12} \cdot \frac{2}{11} = \frac{8}{132} = \frac{2}{33}$$

**Probability**

**No  
Correlation**

**Probability  
of  
Dependent  
Events**

**Probability  
of  
Independent  
Events**

If there are  $m$  ways for one event to occur and  $n$  ways for a second event to occur, then there are  $m \cdot n$  ways for both events to occur.

Joe has two pairs of pants (blue and tan). He also has three shirts (red, green and white). List the possible outfits that Joe can make.

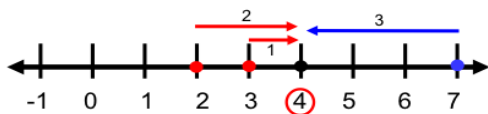
PANTS	SHIRTS	POSSIBLE OUTCOMES
blue	red	→ blue pants with red shirt
	green	→ blue pants with green shirt
	white	→ blue pants with white shirt
tan	red	→ tan pants with red shirt
	green	→ tan pants with green shirt
	white	→ tan pants with white shirt

$2 \cdot 3$  or 6 possible outcomes

a measure of central tendency

2, 3, 4, 7

Balance Point



Numerical Average

$$\frac{2 + 3 + 4 + 7}{4} = \frac{16}{4} = 4$$

a measure of central tendency

6, 7, 8, 9, 9

8 = median

5, 6, 8, 9, 11, 12

8.5 = median

**Tree  
Diagram**

**Fundamental  
Counting  
Principal**

**Median**

**Mean**

a measure of central tendency

Data Sets	Mode
2, 3, 3, 3, 5, 5, 9, 10	3
5.2, 5.4, 5.5, 5.6, 5.8, 5.9, 6.0	none
1, 1, 2, 5, 6, 7, 7, 9, 11, 12	1, 7

bimodal

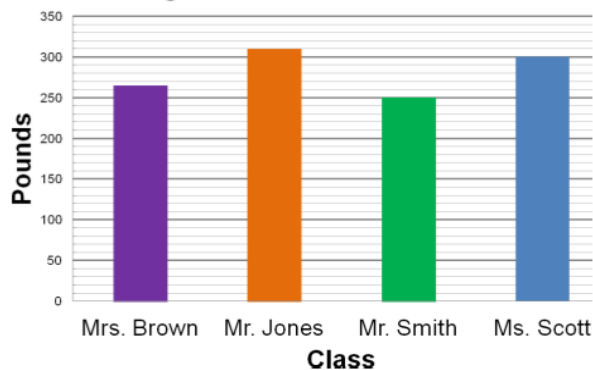
Data set

$2\frac{1}{2}$ , 3,  $3\frac{3}{4}$ ,  $3\frac{7}{8}$ , 5,  $5\frac{1}{2}$ ,  $9\frac{1}{6}$ ,  $10\frac{4}{5}$ ,  $15\frac{1}{2}$ , 20

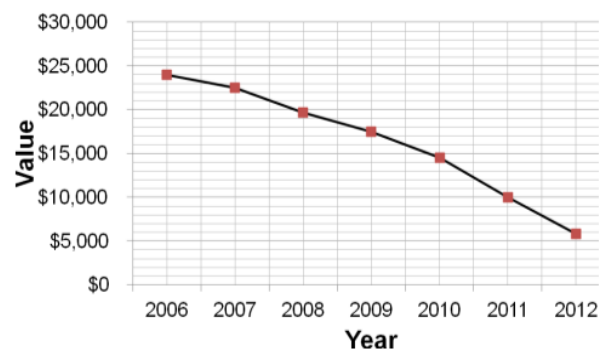
$$20 - 2\frac{1}{2} = 17\frac{1}{2}$$

$$\text{Range} = 17\frac{1}{2}$$

Pounds of Newspapers Recycled by Lexington Middle School Students



Value of Sarah's Car



**Range**

**Mode**

**Line Graph**

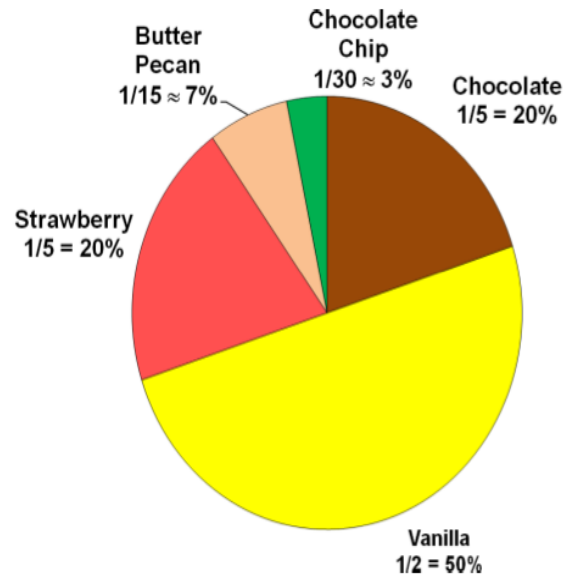
**Bar Graph**

Math Test Scores  
56, 65, 98, 82, 64, 71, 78, 86, 95, 91,  
59, 70, 80, 92, 76, 82, 85, 91, 92, 73

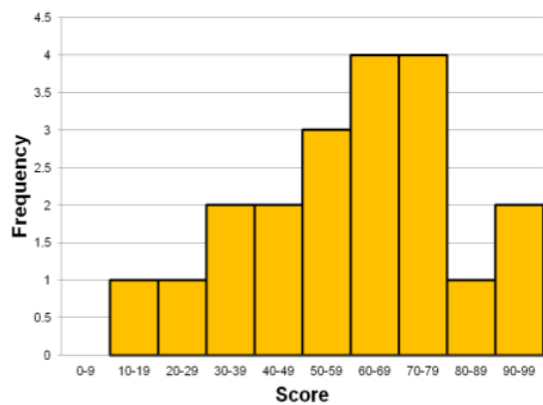
STEM	LEAF
5	6 9
6	4 5
7	0 1 3 6 8
8	0 2 2 5 6
9	1 1 2 2 5 8

Key: 5|6 means 56

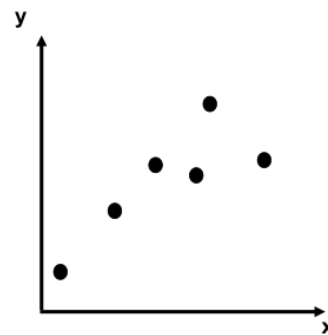
## Favorite Ice Cream



Exam Scores of Students



illustrates the relationship between two sets of data.



**Circle  
Graph**

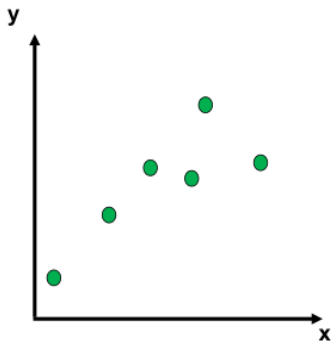
**Stem-and-  
Leaf Plot**

**Scatterplot**

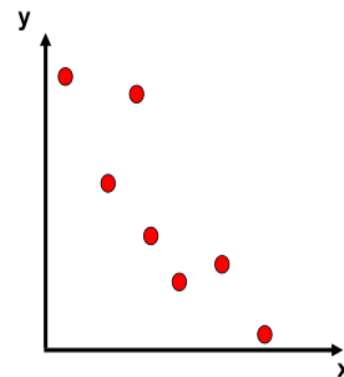
**Histogram**



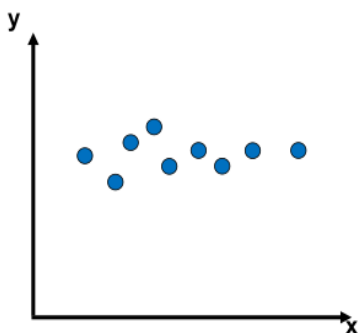
y-coordinates increase as  
x-coordinates increase



y-coordinates decrease as  
x-coordinates increase



y-coordinates remain about  
the same as x-coordinates  
increase



**Negative  
Correlation**

**Positive  
Correlation**

**Constant  
Correlation**