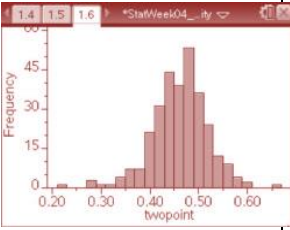
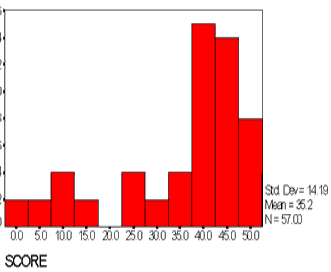
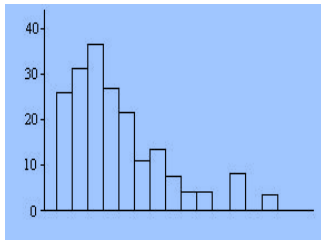
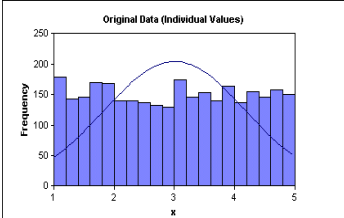
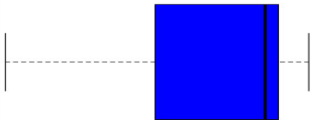
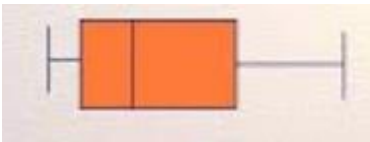


Modeling Data Key Concepts

Ways to Describe the SHAPE of Distributions:

SYMMETRIC	SKEW LEFT	SKEW RIGHT	UNIFORM
			
			
Same on both sides	Pulled to the left, high on the right	Pulled to the right, high on the left	Same throughout

Ways to Describe the CENTER of Distributions:

MEAN	MEDIAN	MODE
- ADD the numbers - Count how many numbers you have - Divide the sum by the amount of numbers	- Put the values in order from smallest to largest. - Find the middle value. - If there are two middle values, then find the average of those two numbers.	The number that repeats itself the most times.
9, 3, 1, 8, 3, 6 $9 + 3 + 1 + 8 + 3 + 6 = 30$ $30 \div 6 = 5$ The mean is 5	9, 3, 1, 8, 3, 6 1, 3, 3, 6, 8, 9 The median is 4.5	The most common number 9, 3, 1, 8, 3, 6 The mode is 3
Average	Middle	Most

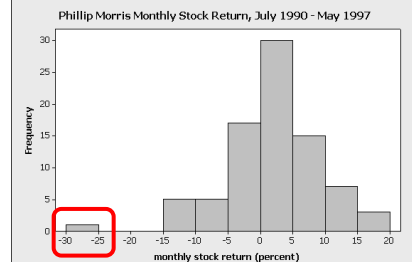
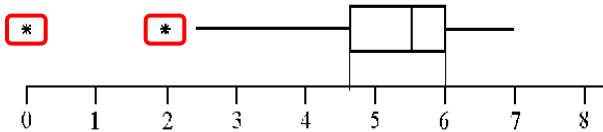
Ways to Describe the SPREAD of Distributions:

RANGE	INTERQUARTILE RANGE (IQR)
$\text{range} = \text{max} - \text{min}$ 16, 24, 26, 26, 26, 27, 28 $\text{range} = 28 - 16$	$\text{IQR} = Q_3 - Q_1$ 23, 25, 28, 28, 32, 33, 35 $\text{IQR} = 33 - 25$

Ways to Identify OUTLIERS of Distributions:

A value that "lies outside" (is much smaller or larger than) most of the other values in a set of data.

Lower Outlier = $Q_1 - (1.5 \times \text{IQR})$



Higher Outlier = $Q_3 + (1.5 \times \text{IQR})$

