

Name: _____ Date: _____

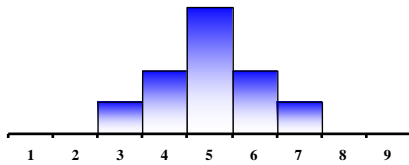
How to Compare Distributions

When you compare two or more data sets, focus on four features:

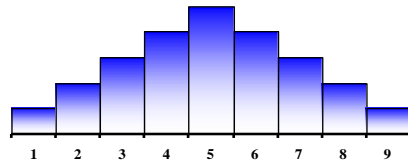
- ★ Graphically, the _____ of a distribution is the point where about half of the observations are on either side.
- ★ The _____ of a distribution refers to the variability of the data. If the observations cover a wide range, the spread is larger. If the observations are clustered around a single value, the spread is smaller.
- ★ The _____ of a distribution is described by symmetry, skewness, number of peaks, etc.
- ★ _____: refer to gaps (areas of the distribution where there are no observations) and outliers.

SPREAD

The spread of a distribution refers to the variability of the data. If the data cluster around a single central value, the spread is smaller. The further the observations fall from the center, the greater the spread or variability of the set.



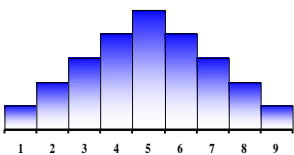
1. _____



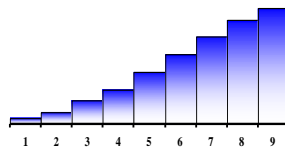
2. _____

SHAPE

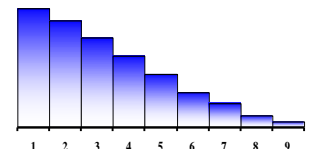
The shape of a distribution is described by symmetry, number of peaks, direction of skew, or uniformity



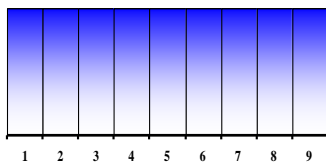
3. _____



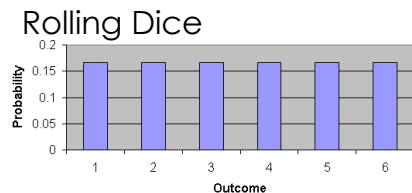
4. _____

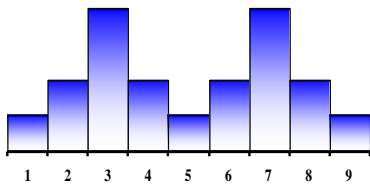


5. _____

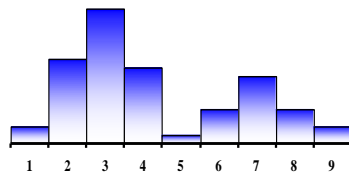


6. _____

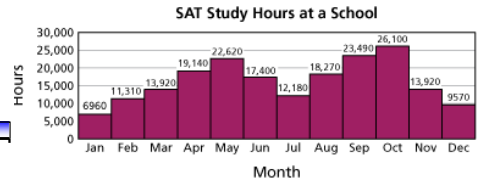




7. _____

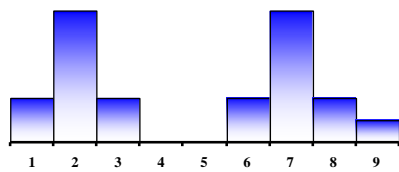


8. _____



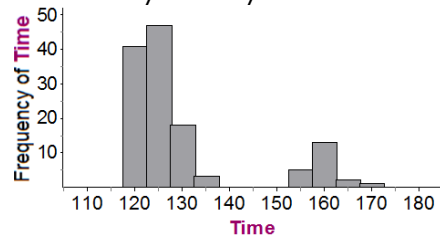
UNUSUAL FEATURES

Sometimes, statisticians refer to unusual features in a set of data. The two most common unusual features are gaps and outliers.

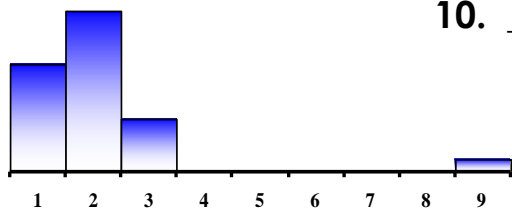


9. _____

Kentucky Derby Times

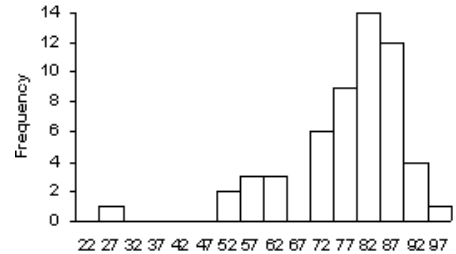


What could have caused this shift in times?



10. _____

Exam Scores



Practice Problems:

What shape would the following situations have?

- 1) A really hard test
- 2) A really easy test
- 3) Results of rolling a 6 sided die 1000 times
- 4) Heights of student at Hillgrove?
- 5) Heights of NBA players?