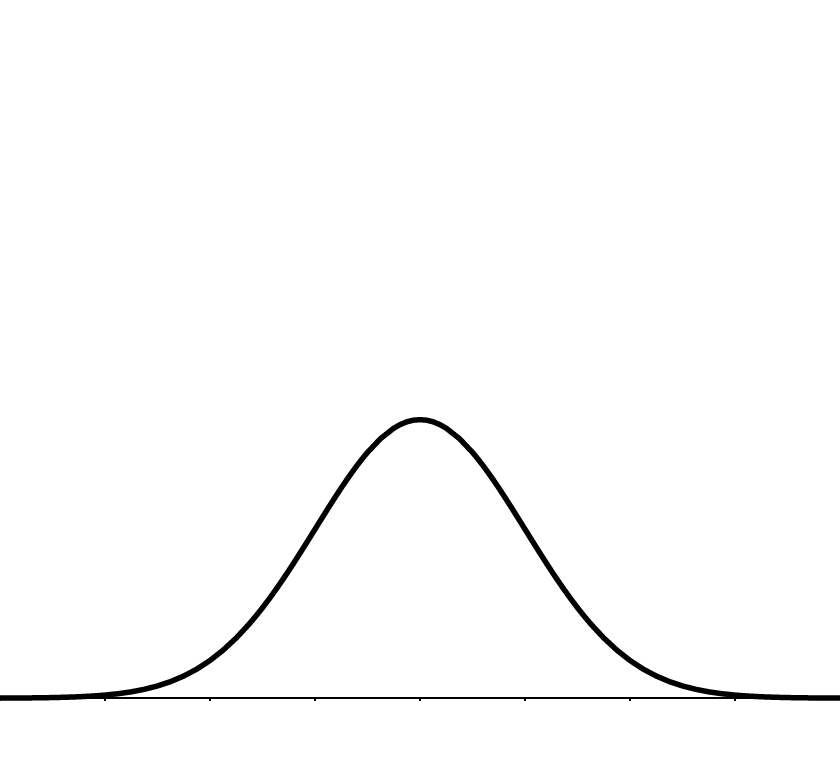
Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**One Variable Statistics**

**The Empirical Rule**

**Independent Practice**

1. Kellogg’s in Kalamazoo, Michigan has a machine that fills the Fruit Loop cereal boxes with cereal. It dispenses cereal with a normal distribution and has a mean of and a standard deviation of ounces.



1. The middle of cereal boxes contain between \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ ounces of cereal.
2. Approximately of cereal boxes have between \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ ounces of cereal.
3. What percentage of cereal boxes contain more than ounces of cereal?
4. What is the probability that a randomly selected bottle of cereal contains between 23.9 and 24.1 ounces of cereal?
5. ACT mathematics score for a particular year are normally distributed with a mean of and a standard deviation of points.
6. What is the probability that a randomly selected score is greater than points?
7. What percentage of students scores are between and ?
8. A student who scores a is in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ percentile.
9. Mr. Barnett’s test is normally distributed with a mean of and a standard deviation of points.
10. What is the probability that a randomly selected score is greater than points?
11. What percentage of students scores are between and ?
12. A student who scores a is in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ percentile.