

Name: _____ Date: _____

Notes:

- Accuracy means the answer is EXACT!!!
- Approximation means the answer is rounded at the END!!!
- Estimation means the answer is rounded at the BEGINNING!!!

Examples:

- 1) Betty confirmed 159 people at her pool party. She thinks that each guest will eat 2 slices of pizza, so she decides to order $2 \times 159 = 318$ slices of pizza. This answer is an ESTIMATION because she is guessing at the beginning of the party with 2 slices per person!!!
 - 2) Carol received 4 identical boxes of calculators at her store. The first box contained 20 calculators, so she determined that there was a total of 80 calculators within all of her boxes. This answer is EXACT because each box is identical.
 - 3) Luke is drawing a college flag (UGA of course) using a right triangle. He finds that the legs of the triangle should be 11 inches each with a hypotenuse of 15.5 inches. This answer is APPROXIMATED because the final answer was rounded.
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Directions: Determine whether the situation requires an exact answer, an approximation, or an estimate.

1. A recipe that calls for 4 cups of sugar is being doubled.

 2. A party planner needs to determine how many entrees to order. The client suggests there will be between 100 to 150 guests in attendance.

 3. A square with a side of 9 yd has a diagonal of 12.72 yd.

 4. The temperature on a thermometer reads 32°F .

 5. An elevator can hold up to 1T. The average weight of the passengers is 180 lb. Based on this average and the fact that there are 10 people on the elevator, there is a total of 1800 lb.
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Directions: Choose the best answer.

6. Which of the following represents an approximate quantity?
- a. The slope of a hill is about 20° .
 - b. A female dog had 10 pups.
 - c. Weather.com predicts a low temperature of 20°F today.
 - d. The maximum capacity of an elevator is 1,500 pounds.
7. For which of the following situations would you need an exact answer?
- a. The number of bananas on a peanut butter banana sandwich.
 - b. The number of people in a city.
 - c. The number of fans in the Lassiter football stands.
 - d. The number of passengers on a school bus.

Directions:

8. The following are two measurements for the same object, which measurement is more precise?

A. 52mm or 5.2 cm

B. 3lb or 47 oz

C. 5.2 km or 5,233 meters

Directions: Select the most appropriate unit to use in each case.

9. Measuring the total weight on an elevator: pounds or tons
10. Measuring the distance between 2 classrooms: feet or miles
11. Measuring the time it takes to complete a marathon: minutes or seconds
12. Height of a mountain: inches or feet
13. Capacity of a soda bottle: Milliliters or Liters
14. Distance between Lassiter and Atlanta: meters or kilometers
15. Length of a desk: centimeters or meters
16. Time it takes for a full night's sleep: minutes or hours
17. Height of a skyscraper: meters or kilometers
18. Speed of a panther: feet per second or miles per hour