

Name: _____ Block: _____ Date: _____

ALL WORK MUST BE SHOWN AND THE ANSWER IS TO BE IN THE FORM OF A SENTENCE TO GET CREDIT.

1. You are making muffins for a class party. You need 2 cups of flour to make a pan of 12 muffins. You have a 5 lb bag of flour, which contains 18 cups. How many possible muffins can you make?
2. A local pizzeria offered a special. Two pizzas cost \$14.99. A group of students spent less than \$75. They purchased three pitchers of soda for \$12.99. How many pizzas could the group purchase?
3. A student needs at least seven hours of sleep each night. The student goes to bed at 11:00 pm and wakes up before 6:30 am. How many hours of sleep is the student getting each night? Is the student getting enough sleep?
4. The goal of a toy drive is to donate more than 1000 toys. The toy drive already has collected 300 toys. How many more toys does the toy drive need to meet its goal? Write and solve an inequality to find the number of toys needed.
5. A family earns \$1800 a month. The family's expenses are at least 1250. Write and solve an inequality to find the possible amounts the family can save each month.
6. To go to the next level in a certain video game, you must score at least 50 points. You currently have 40 points. You fall into a trap and lose 5 points. How many points must you earn to go to the next level?
7. You wonder if you can save money by using your cell phone for all long distance calls. Long distance calls cost \$.05 per minute on your cell phone. The basic plan for your cell phone is \$29.99 each month. The cost of regular phone served with unlimited long distance is \$39.99. What is the number of long-distance call minutes you make and still save money? Define a variable and write an inequality solve this problem.
8. The unit cost for a piece of fabric is \$4.99 per yard. You have \$30 to spend on material. How many feet of material could you buy? Define a variable and write an inequality and solve this problem.
9. A grandmother says her grandson is two years older than her granddaughter and that together, they are at least 12 years old. How old is her grandson and granddaughter?
10. A family decides to rent a boat for the day while on vacation. The boat's rental rate is \$500 for the first two hours and \$50 for each additional half hour. Suppose the family can spend \$700 for the boat. How many hours can they rent the boat? Define the variable, write the inequality and solve the problem.
11. A contractor is building a rectangular walkway $3\frac{1}{3}$ ft. wide by 35 ft. long using square cement pavers. Each paver has an area of $\frac{4}{9}$ ft². What is the least amount of pavers he needs to make the walkway?
12. A company sells men's basketballs with a circumference of 29.5 in. They also sell youth basketball with a circumference of 27.75. The company has cube-shape packaging boxes with edges that are 8 in., 9 in. or 10 in. long. What is the smallest box in which each ball can be packaged?
13. A sales associate in a shoe store earns \$325 per week, plus a commission equal to 4% of her sales. This week her goal is to earn \$475. At least how many dollars' worth of shoes must she sell in order to reach her goal?
14. The acidity of the water in a swimming pool is considered normal if the average of three pH readings is between 7.2 and 7.8 inclusive. The first two readings for a swimming pool are 7.4 and 7.9. What possible values for the third reading p will make the average pH normal?
15. The absorbency of a certain towel is considered normal if the towel is able to hold between six and eight mL. The first checks for materials result in absorbency measures of 6.2 mL and 7.2 mL. What possible values for the third reading m will make the average absorbency normal?
16. A family is comparing different car seats. One car seat is designed for a child up to and including 30 lb. Another car seat is designed for a child between 15 lb. and 40 lb. A third car seat is designed for a child between 30 lb and 85 lb., inclusive. A third car seat is designed for a child between 30 lb and 85 lb, inclusive. Model these ranges on a number line. Represent each range of weight using interval notation. Which car seats are appropriate for a 32 lb child?