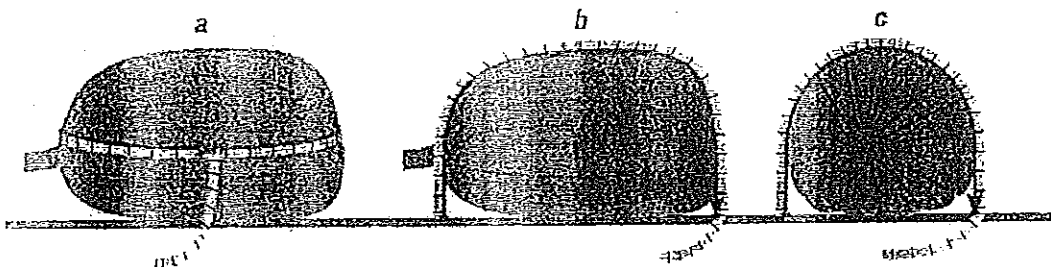Name: _____ Date: _____ Period: _____

Distributive Property Word Problems

Directions: Write an expression for the following situation using the distributive property.

① **Basketball** There are 29 teams in the National Basketball Association (NBA). Each team can have a maximum of 12 healthy players plus 3 players on injured reserve. Use the distributive property to find the maximum number of players who can be in the NBA.

② **Snowfall** Utah Olympic Park, site of the 2002 Olympic Winter Games, gets an average of 295 inches of snow each year. Use estimation to predict the total snowfall in Utah Olympic Park over a 5 year period. Justify your answer using the distributive property and mental math.

③ **Short Response** You and a friend go to the movies. You each buy a ticket for $9.00 and a popcorn-and-drink combo for $5.25. Describe two methods you can use to find the total amount of money you and your friend spend. What is the total amount spent?

④ **Giant Pumpkins** A giant pumpkin can be difficult to weigh directly on a scale. To estimate the weight, you can first measure the distances a, b, and c (in inches) as shown below. The weight W (in pounds) can then be approximated using the formula $W = 1.9(a + b + c)$.

a. Use the distributive property to write the given formula without parentheses.

b. For a certain pumpkin, $a = 132$ inches, $b = 91$ inches, and $c = 85$ inches. Approximate the weight of the pumpkin to the nearest pound.