

# CAPACITY

## Water, Water, (and Other Liquids) Everywhere...

1. One of the game activities uses water balloons. Your task is to determine how much water will be used for this activity. Each balloon holds approximately 12 ounces of water and there are 120 fifth graders who attend and play this game with a partner. Keep in mind that some fifth graders may not play and some may play twice. About how many gallons of water do you think will be needed? Luckily school water will be used and there is no fee or even donation needed for this.
2. The Fifth graders also anticipate a hot day and thirst-quenching bottles of would be nice. The water may be purchased from a discount store A where 16 ounce bottles are sold in cases of 24 for \$3.49 or from store B where 20 ounce bottles are sold for \$4.19. Which one do you think would be the better buy? Why? How many cases would you purchase?
3. If the fifth graders drink all the bottles of water you purchase, estimate the number of gallons of water that will be drunk. Then check to see how close your estimate in number 3 is.
4. Mrs. Jones, a classmate's Mom, has agreed to donate some of her wildly delicious and world famous Tooty-Fruity Delight Punch for the luncheon. Use the recipe below to figure out the quantity of each ingredient.

2 cups pineapple juice

2 cups orange juice

1 cup lemon juice

1 cup lime juice

1 cup sugar

1 quart ginger ale, chilled

1 quart carbonated water, chilled

Combine fruit juices and sugar; chill. Just before serving add ice cubes, ginger ale, and carbonated water.

Yield: 3 1/2 quarts

- A. If each of the 120 fifth graders in attendance drinks an 8 ounce cup of punch, how many gallons will she need to make?
- B. Determine the amount of each ingredient needed to make the punch and record in the chart.
- C. Next use the information to determine the cost of each ingredient and then the final cost of the punch.

<b>Ingredient</b>	<b>Amount needed</b>	<b>Unit Price</b>	<b>Cost</b>
Pineapple Juice		\$3.39 per 1/2 gallon	
Orange juice		\$3.49 per 1/2 gallon	
Lime juice		\$1.99 per 8 fluid ounces	
Sugar		\$ 2.49 for 4 pounds (8 cups)	
Ginger Ale		\$3.99 for 16 fluid ounces	
Carbonated water		\$3.69 for 60 fluid ounces	