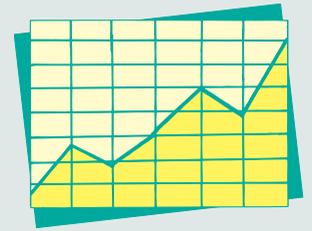


Tap the Math Facts Behind Bottled Water

Name: _____ Date: _____

When you're thirsty at school, do you get a drink from a water fountain or do you choose bottled water? To learn more about the math behind bottled water, study the table below, and then answer the questions.



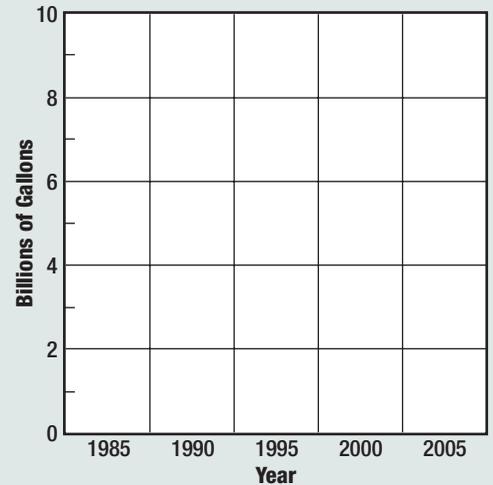
**Work
the
Math:**



Bottled Water Use

Year	Gallons Sold (Billions)
1985	1.2
1990	2.2
1995	3.1
2000	5.4
2005	7.2

Bottled Water Sold



1 **Line It Up** Using the blank graph to the right, create a line graph to illustrate the data from the table.

2 In what period did the greater increase occur: between 1995 and 2000 or between 2000 and 2005? _____ In that period, what was the rate of increase? _____ (Hint: Use the formula below to help make calculations; round your answer to a whole percentage.)

$$\frac{\text{second year} - \text{first year}}{\text{first year}} \times 100 = \text{rate of increase}$$

3 Suppose a school provides bottled water to its students. The average student drinks 85 gallons of water during the school year at an average cost of \$1 per gallon. If the same amount of water had come from a water fountain instead, how much money would the school have saved per student? _____ (Hint: The average cost for tap water is \$0.002/gallon.)

4 Read the following, then answer the questions below (Hint: Round to the nearest tenth):

- A school gives away 3,200 gallons of bottled water over the year.
- Approximately 0.018 gallons of oil is used to produce each gallon-size bottle.
- One gallon of oil costs \$1.50.
- Two gallons of water are used to make each bottle.

a. In all, how many gallons of oil were used to produce 3,200 gallons of bottled water? _____ At what cost? _____

b. How much water was used to make the bottles? _____

5 Suppose 25% more bottled water is given away the following year, and the price of oil increases to \$1.76 per gallon. How many *additional* gallons of oil would be used? _____ What would be the new *total* cost of the oil used to produce all the bottles? _____

