Maple Math   Grades   5-6

Here are some questions farmers must be able to answer. Can you answer them?
Give it a try.

1. Maple sap is collected in buckets. Each bucket holds 4 gallons of sap. If a farmer collects sap from 50 buckets, how many gallons of sap has the farmer collected?

2. Some farmers collect maple sap in large tanks. One farmer has a 200 gallon tank. If the tank is one-half (1/2) full, how many gallons of sap has he collected?
   If the tank is three-fourths (3/4) full, how many more gallons must he add to fill the tank?

3. It takes approximately 40 gallons of sap to make 1 gallon of maple syrup.
   If a farmer collects 80 gallons of sap how many gallons of syrup can he produce?
   If a farmer collects 60 gallons of sap, how many gallons of syrup can he produce?

4. A maple tree produces about 3 gallons of sap on an average warm day.
   If the weather pattern remains the same, in three (3) days, how many gallons does a tree produce?
   How many gallons of sap would 7 trees produce in 5 days?

5. In a sugar bush, some of the older and larger trees can have more than one tap. In our imaginary sugar bush, Tree A has 4 taps, Tree B has 3 taps, Tree C has 2 taps, Tree D has 4 taps, and Tree E has only 1 tap.
   How many total taps does the maple farmer have in this sugar bush?
   If the number of taps were reduced by one (1) per tree, how many trees would have taps?
   How many total taps would be used on all trees?
   If each tap produced ten (10) gallons of sap during the sugar season, how much total sap would be produced?

TEACHER GUIDE

OBJECTIVES	Students will solve word problems related to Maple Sugaring.
	Students will learn about the sugaring process while solving math problems.
	Students will realize some of the work and calculations that a farmer does daily.
STANDARDS	5.NF.1-2: Use equivalent fractions as a strategy to add and subtract fractions.
	5.NF.3-7: Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
	6.EE.1-4: Apply and extend previous understandings of arithmetic to algebraic expressions.
	6.EE.5-8: Reason about and solve one-variable equations and inequalities.