



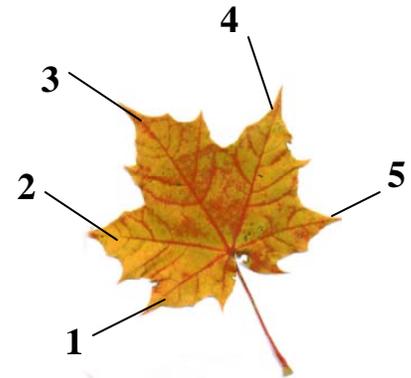
Math for the *Sugar Maple Tree*



The state tree of New York is the sugar maple (*Acer saccharum*). It is a magnificent forest tree abundant everywhere in upstate New York. Besides providing beautiful borders to many miles of highways and thousands of gallons of delicious maple syrup, it yields a high grade of wood. Because of its particularly brilliant red, orange and yellow fall foliage, sugar maples are often planted as shade trees.

Some interesting facts about our state tree include the following:

- It averages about 1ft. of height growth and 0.2 in. of diameter growth each year for the first 30 – 40 years.
- After about 140 – 150 yrs., height growth ceases and radial growth slows greatly.
- It can live as long as 300 – 400 years.
- Individual trees range from 70 – 110 ft. tall with diameters at breast height (dbh) of 20 – 37 in.



Its leaf has 5 lobes.

1. Your school is planting 3 sugar maple trees. They will use them to teach students about a sugarbush. The trees are each 3 inches in diameter. A tree must be 12 inches in diameter to tap. When will the trees be large enough to tap?
2. How many gallons of syrup were produced in 2005?
3. Which state had the largest production?
4. What percentage of the total production did that state have?
5. It takes approximately 40 gal. of maple sap to produce 1 gal. of maple syrup. How much maple syrup is made from a gallon of maple sap?
6. You intend to give 4 neighbors each a quart of homemade maple syrup. How many gallons of sap will you need to collect?

