HOW MUCH DO THE LEAVES WEIGH?

Science and Engineering Education Center — The University of Texas at Dallas

Challenge

Find the estimated weight of all of the leaves on a tree.

Materials

● Tree ● Scale ● Pencils ● Paper

Procedure

1. **Take** enough leaves from the tree so that they will register a weight on the scale. Not many will be needed, but try to find a few average sized leaves to weigh.

2. **Divide** the weight by the number of leaves weighed to determine the average weight per leaf.

3. **Figure** the estimated number of leaves on a tree by counting the leaves on several of what seem to be typical branches. Count or estimate the total number of branches on the tree. Multiply the number of branches by the average number of leaves per branch to find the estimated number of leaves on the tree.

4. **Multiply** the average weight per leaf by the estimated total number of leaves on the tree. What do you get? Record your answers below:

Average Weight per Leaf: _____

Average Number of Leaves per Branch: _____

Total Number of Branches: _____

Estimated Number of Leaves on Tree: _____

Estimated Weight of ALL Leaves on Tree: _____

Going further...

- Compare the weights of leaves from different trees.
- Consider how the age of the tree, health of the tree, location of the tree, and/or species impacts both the number of leaves and the total weight of leaves.

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