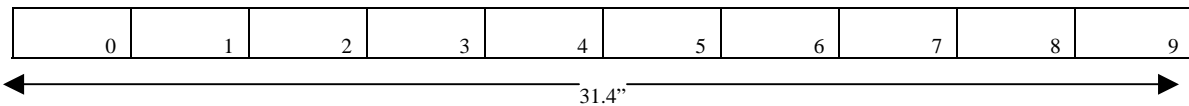# Make Your Own Diameter Tapes

How Big is Your Tree?

Diameter tapes are used to measure the diameter of a tree. Tree diameters are one of measurement needed to estimate the volume of wood that can be cut from a tree. You can create your own low-cost diameter tape by using the directions below and flagging tape.

How to make a diameter tape:

Diameter tapes are based on the geometric formula
        d = C/pi (diameter = circumference divided by pi)

1. Cut a 31.4-inch strip of flagging tape (or paper)

2. Divide into 10ths (What is 31.4 divided by 10?)

3. Draw lines at each 10th

4. Mark each line: 0, 1, 2, 3, 4, and so on

0	1	2	3	4	5	6	7	8	9

◀———————————————— 31.4" ————————————————▶

How to use a diameter tape:
1. Wrap tape around tree 4-½ feet from the base of the tree (this is diameter at breast height, or dbh).
2. The reading on the tape is the tree's diameter.

Tip: Practice measuring circumference and diameter using coffee cans in the classroom.

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Alternate method
1. Using a regular tape measure (inches), measure tree's circumference at dbh.
2. Record the circumference, plug into the formula: d = C/pi

Example:
If the circumference reading from tree is 6 inches, then
d = 6/pi
d = 6/3.14
d = 1.91 inches

Always measure tree circumference and diameter 4-½ feet up from the base of the tree (diameter at breast height).

Photo from: Virginia Technical Forestry Department
www.cnr.vt.edu/dendro/forsite/dtape.htm

Created by Minnesota DNR Forestry Education August 2005