## Make Your Own Diameter Tape

Use with PLT Activity "How Big Is Your Tree?"
Diameter tapes are used to quickly measure the diameter of a tree. Foresters use diameters to estimate the volume of wood a tree can provide. After all, trees are just large cylinders-something we measure in geometry all the time!

## Directions

1. Cut a 31.4 inch strip of flagging tape.
2. Divide the tape into tenths. (What is 31.4 divided by 10 ?)
3. Draw lines at each tenth.
4. Mark each line $0,1,2,3,4$, and so on. Each number is a measure of circumference.

| 1 | 2 | 3 |  | 4 | 5 | 6 | 7 | 8 |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

5. Do 10 math operations by inserting each circumference in the tape above into the formula

$$
\mathrm{d}=\mathrm{C} / \mathrm{pi}
$$

Record each diameter right on the tape. In the example below, the first two are done for you.

| 0.32 | 0.64 |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

## Measuring a tree trunk

This homemade tape only works on trees 31.4 inches in circumference or less.

Always measure trunk circumference 4.5 feet from the base of the tree. 4.5 feet is "diameter at breast height" or dbh.

Use your d-tape to quickly convert circumferences into diameters. You've already done the math!


