Name: $\qquad$
Date: $\qquad$

## Lumber from Trees

You have an 8 -foot section of a tree, that has been debarked. The tree has a diameter of 3 feet. How many $2 \times 4$ 's can you cut from this tree?

Solve this by making a carefully-measured drawing, or through mathematical reasoning.

Optional variations: Do this for $2 \times 6$ 's, and $2 \times 8$ 's as well.
Algebraic variation: Do this for a tree of radius r , and boards of size 2 by x .
Show your work, and write your answer in a complete sentence.

