



Final Project: Which Method?

Name: _____

Circumference method: The total circumference of the new tree(s) must equal the circumference of the tree(s) that were destroyed, measuring the circumference of the trees 2 feet above the ground.

Area method: The total area of the cross-section of the trunk of the new tree(s) must equal the area of the cross-section of the trunk of the old tree(s), measuring the area of the trees 2 feet above the ground.

Which Method?

It has just been reported that an old tree with a diameter of 24 inches has been accidentally damaged by construction machinery in your neighborhood. The Conservation Committee has to decide how many new trees should replace the old tree, if each new tree that the construction company plants has a diameter of 6 inches. The Conservation Committee cannot decide which of the two methods to use for this case.

Since you are an expert on measurement, you were asked to:

1. **Compare the case for each method:**

A) **How many new trees does the company need to plant if you use the Circumference Method?**

B) **How many new trees does the company need to plant if you use the Area Method?**

- 2. Give a detailed explanation about which method should be used in this case and why.**