

Timber



Volunteer Name: _____

Profession: _____ Employer: _____

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FILL IN THE BLANKS:

1. The dominant tree species on the tree farm is Douglas-fir.

2. Before it was a forest it was a hayfield.

3. Four *resources* trees need to grow are:

1. sunlight 2. water

3. nutrients 4. CO₂

Collecting Data

It is not practical to measure every tree in a forest, so foresters take *samples* and make *estimates*.

The sample plot is a 1/10th of an acre (radius=37.2 ft.). To calculate the volume of the tree we need to count the number of trees and measure their heights and diameters.

1. How many trees per acre? Make a guess! _____

_____ number of trees in 1/10 acre plot

× 10 plots per acre

= _____ **number of trees per acre**

2. What is the average DBH (measured at 4.5 ft. above the ground)? Make a guess! _____

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____

8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____

15. _____ 16. _____ 17. _____ 18. _____ 19. _____ 20. _____ 21. _____

This activity is continued on the next page.

_____ total DBH (What is the total DBH of trees measured in the 1/10th acre plot?)

÷ _____ number of trees

= _____ **average DBH**

3. What is the average tree height? - Make a guess! _____ Actual height: _____
Practice with a clinometer!

4. What is the average bf per tree? _____
Use the Timber Volume Table!

5. What is the tree volume (bf) in the plot? 6. What is the value of the trees on the plot and acre?

_____ number of trees in plot

_____ bf per plot

× _____ average bf per tree

× \$0.60 per bf (= \$600 per thousand bf)

= _____ **bf per plot**

= \$ _____ **per plot**

× 10 plots per acre

= \$ _____ **per acre**

7. How can you tell the age of the trees? - Make a guess! _____
Practice with reading a core sample!

Count the years it took to grow an inch _____ Actual Age: _____ years

Thinking about Management

1. If you were going to thin this forest (taking out 1/4 of the trees), how would you select what trees to harvest?
2. Can you find an example of a tree that is *suppressed* with other trees *outcompeting* it for resources?