

# Eastman Nature and Wildlife Habitat Center

## Forestry Math

\_\_\_\_\_

Your Name



### Site Survey Data Sheet

Date \_\_\_\_\_ Time \_\_\_\_\_

Location \_\_\_\_\_

Present Weather (Clear, Cloudy, Overcast or Raining) \_\_\_\_\_

Air Temperature \_\_\_\_\_ Celsius \_\_\_\_\_ Fahrenheit

Wind \_\_\_\_\_ (Which direction is the wind coming from?)



### Measure an Acre

Select an area in the forest to measure and mark the corners of one acre. Then answer the following questions.

There are \_\_\_\_\_ trees on my acre.

I counted \_\_\_\_\_ evergreen trees on my acre.

What is the name of the tallest tree on your acre? \_\_\_\_\_

## Tree Height

Select a tree and estimate the height using the following 2 procedures.

1. Walk away from the base of the tree and bend over and sight its top between your legs. When you can see the top of the tree you are approximately equal to the height as you are from the tree. Walk back toward the tree counting your steps.

Height of Tree \_\_\_\_\_

2. Mark your height on the tree trunk. Step back away from the tree. Hold your pencil out in front of you and sight the mark on the tree. Use your thumb to mark your pencil. Count the number of times your "marked" pencil will go to the top of the tree. Multiply that number by your height.

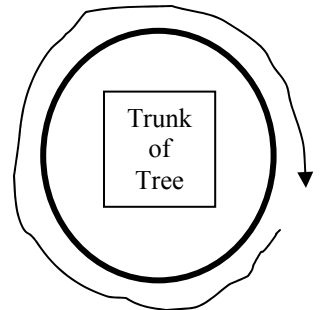
Height of Tree \_\_\_\_\_



## Tree Circumference

Measure and record the circumference of your tree approximately 4 feet from the base of the tree. Record your tree's circumference.

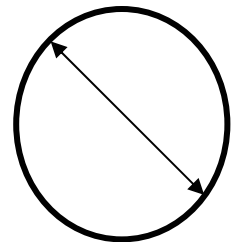
My tree's circumference is \_\_\_\_\_.



## Tree Diameter

Measure and record the circumference of your tree approximately 4 feet from the base of the tree. Every 3.14 inches of circumference is equal to 1 inch of the tree's diameter. Record your tree's diameter.

My tree's diameter is \_\_\_\_\_.



## Tree Canopy Diameter and Circumference

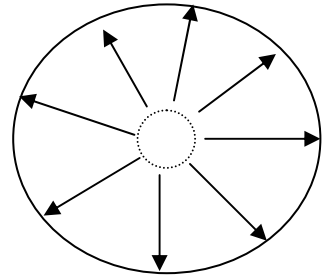
Stand with your back to your tree and walk in a straight line to the edge of the canopy. Place a marker in the soil and repeat this process 7 more times. Next, start at one of the markers and walk the circumference of your tree. Count the number of paces and then multiply your pace by the total number of steps.

The length of my pace is equal to \_\_\_\_\_ feet.

I counted \_\_\_\_\_ steps around the circumference of my tree.

The circumference of my tree's canopy is \_\_\_\_\_ feet.

The diameter of my tree's canopy is \_\_\_\_\_ feet.



## How Old Is That Tree?

Locate 2 trees in the clear-cut area and determine the age of each tree by counting the rings.

The age of tree #1 is \_\_\_\_\_ years.

What year was this tree #1 planted? \_\_\_\_\_

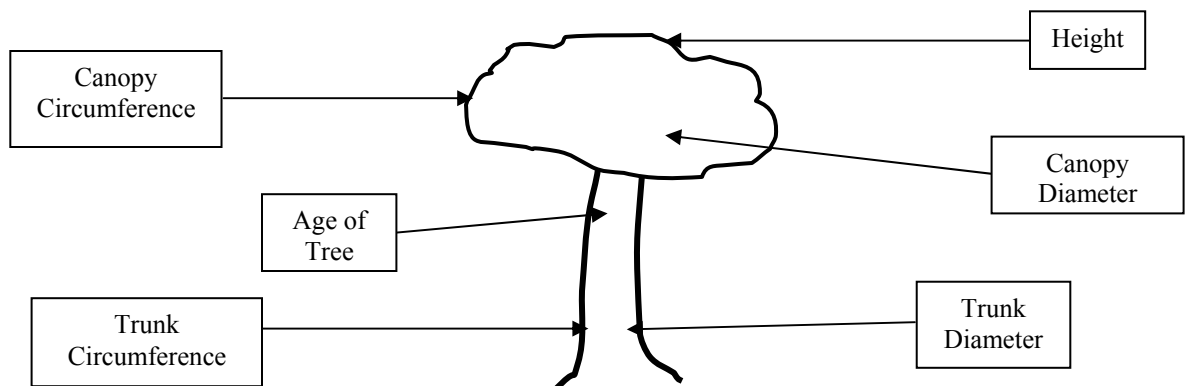
The age of tree #2 = \_\_\_\_\_ years.

What year was tree #2 planted? \_\_\_\_\_



## A Map of My Tree

Transfer your measurements from the previous pages about your tree. Write your answer on the line.



## Graph-A-Tree

Take your tree's measurements from the previous pages and transfer the data on the graph.


Height

Canopy Circumference

Canopy Diameter

Age of Tree

## Sketch Your Tree

Draw a rough sketch of the skeleton of your tree. Is your tree symmetrical?

## Diversity of Trees

With a partner, select an area in the forest and mark an area 50 feet by 50 feet square. Inventory all the trees in your area. Identify, count and record the specific number of each tree.

\_\_\_\_\_ Dogwood    \_\_\_\_\_ Black Cherry    \_\_\_\_\_ Redbud    \_\_\_\_\_ Sweetgum    \_\_\_\_\_ Boxelder Maple

\_\_\_\_\_ Persimmon    \_\_\_\_\_ Holly    \_\_\_\_\_ Water Oak    \_\_\_\_\_ Willow Oak    \_\_\_\_\_ Chinese Tallowtree

\_\_\_\_\_ Hercules-club    \_\_\_\_\_ Red Mulberry    \_\_\_\_\_ Sassafras    \_\_\_\_\_ Winged Elm    \_\_\_\_\_ Black-Gum

\_\_\_\_\_ Red Maple    \_\_\_\_\_ Red Oak    \_\_\_\_\_ Shortleaf Pine    \_\_\_\_\_ Loblolly Pine    \_\_\_\_\_ Silktree

\_\_\_\_\_ American Holly    \_\_\_\_\_ Cherry-laurel    \_\_\_\_\_ American Elm    \_\_\_\_\_ Eastern Red-cedar

## Tree Richness

Now let's look at the **richness** of your survey area. Richness is the total number of a specific tree. Record the name of the tree and the number counted in your study area.

**Tree**

**Number**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Journal

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## Journal

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