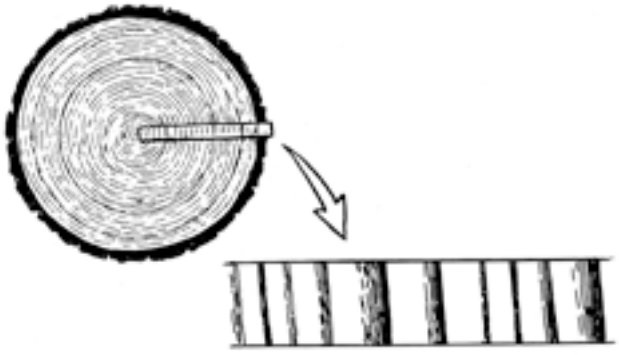
Tree-Ring Activity

Based on: http://www.pbs.org/wgbh/nova/teachers/activities/2817_methusel_01.html

Name _____ Class_____

Have you ever looked at a tree outside your house and wondered when it started growing? You can't tell how old it is just from looking at it, but you can tell from samples taken from within the tree. In this activity, you will analyze tree ring samples -- all from the same area -- and determine the age of the oldest sample.



Tree Rings
Trees start out small, and each year, they grow by one ring. By counting the rings from the middle of the trunk out to the end, a scientist can tell how old a tree is. One tree ring is added each year.

Procedure:
1. Cut out each of the four tree-ring samples.
2. Glue the live tree sample down first
3. Now find the sample that matches part of the living tree sample. Line that up correctly and glue that sample down. Continue this process until you have used all the samples.
4. Now count how many rings there are total, **making sure to count the overlapped regions only once**. How old is this tree?

Questions:
1. If a living tree is 15 years old, how many tree rings would it have? How do you know?
2. Why are some rings are bigger and others smaller?
3. Your samples represent trees with normal growth years. What are some factors that might contribute to abnormal growth?
4. You looked at four samples, but scientists who study tree rings use **many** samples from the same area. Why might this be?
5. **BONUS**: How old is the real tree ring sample? _____

Tape your tree ring samples here:
Put Living Tree Sample at Far Right!

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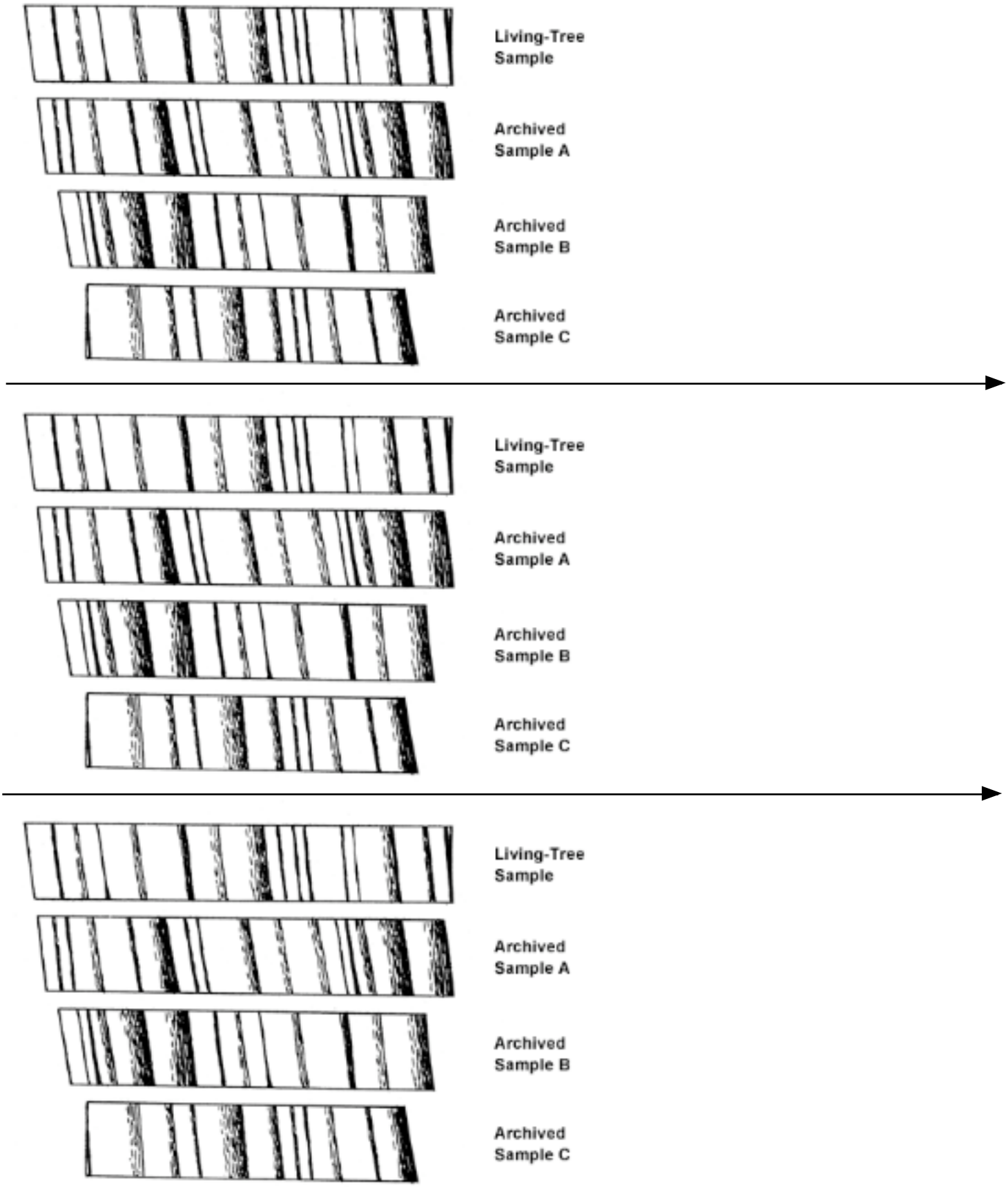
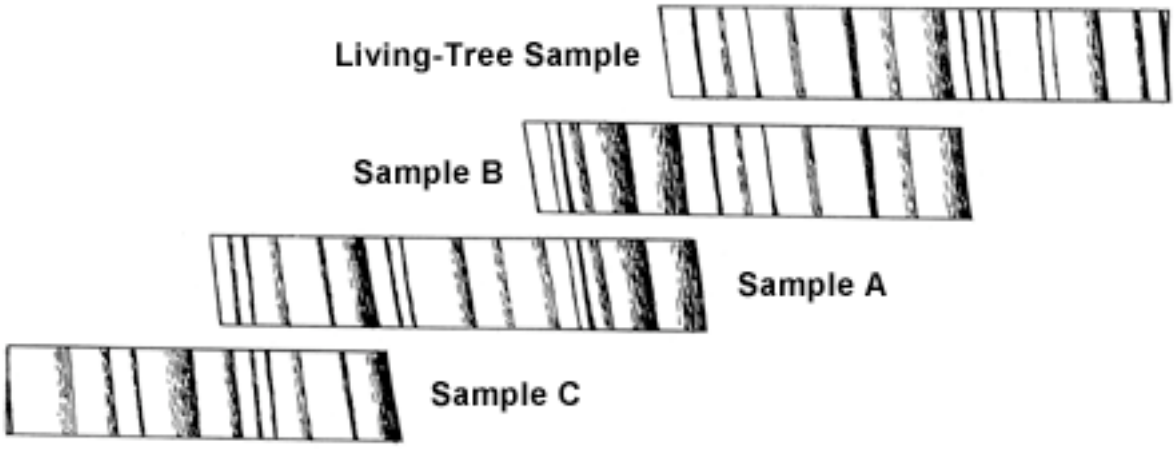


ANSWERS:

Correct Sequence:



The age of the tree in the sample is 35.

The bristlecone pine chronology done in the southwest United States stretches back more than 4,600 years.

Great website shows panoramas (using QuickTime) of bristlecone pines:
http://www.pbs.org/wgbh/nova/methuselah/expl_discovery.html