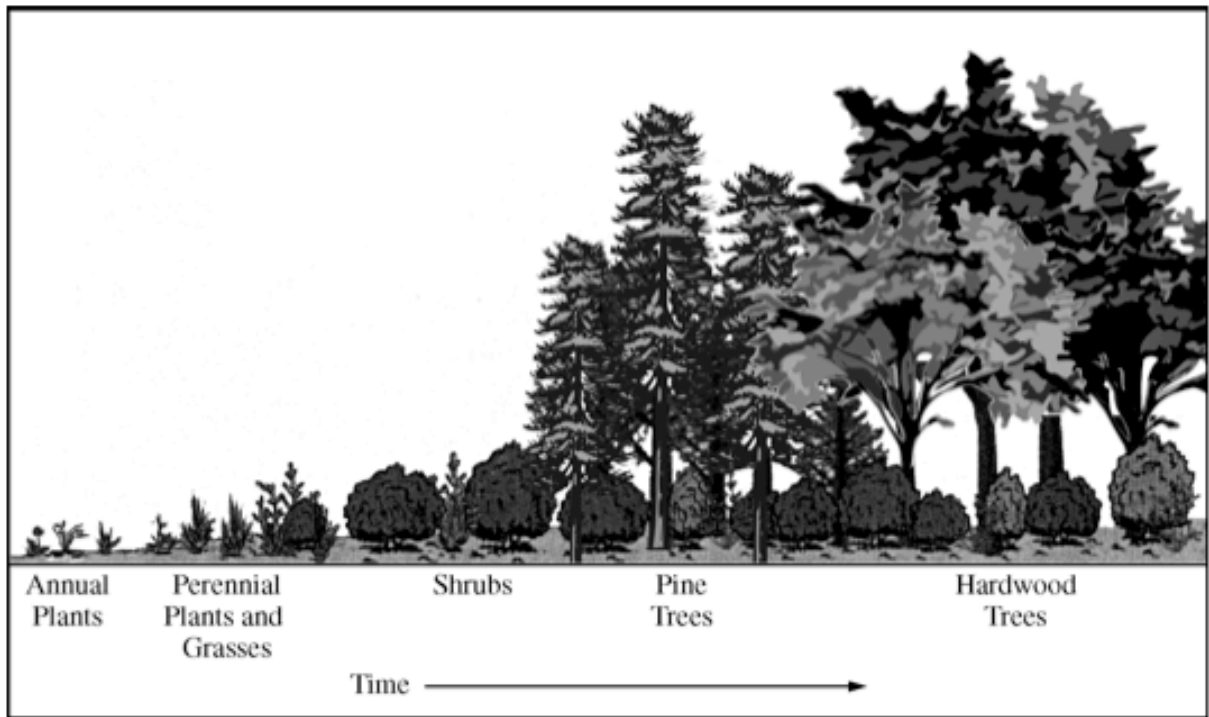


Name \_\_\_\_\_

## AP BIOLOGY EXAM TWELVE FREE RESPONSE QUESTION



The diagram above shows the succession of communities from annual plants to hardwood trees in a specific area over a period of time.

- (a) **Discuss** the expected changes in biodiversity as the stages of succession progress as shown in the diagram above.
- (b) **Describe** and **explain** THREE changes in abiotic conditions over time that lead to the succession, as shown in the diagram above.
- (c) For each of the following disturbances, **discuss** the immediate and long-term effects on ecosystem succession.
  - (i) A volcano erupts, covering a 10-square-kilometer portion of a mature forest with lava.
  - (ii) A 10-square-kilometer portion of a mature forest is clear-cut.