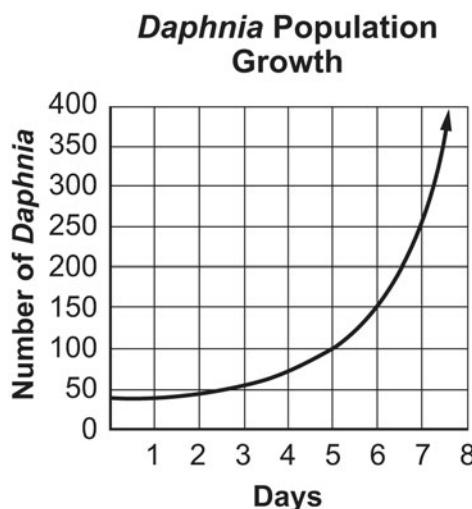


## Pretest: Ecosystems: Stability and Change

Read each question. Circle the letter of the correct answer.

1. What is the movement of a single caribou into a herd an example of?
  - A. emigration
  - B. population
  - C. immigration
  - D. competition
  
2. Which of these is a sequence of biotic changes that regenerates or creates an ecological community?
  - A. erosion
  - B. factors
  - C. migration
  - D. succession
  
3. Which of these is a biotic factor that affects population size?
  - A. air
  - B. food
  - C. temperature
  - D. precipitation
  
4. What pattern of growth will a population with limited resources show?
  - A. logistic
  - B. exponential
  - C. density-dependent
  - D. density-independent
  
5. The development of an ecosystem in an area that has been covered by lava begins with the \_\_\_\_\_.
  - A. appearance of soil
  - B. migration of animals
  - C. growth of trees and shrubs
  - D. breakdown of rock by pioneer species
  
6. Which of these describes lichens and mosses that first colonize a previously barren area?
  - A. primary species
  - B. pioneer species
  - C. non-native species
  - D. secondary species
  
7. Which of these will increase the size of a population?
  - A. emigration and births
  - B. emigration and deaths
  - C. immigration and births
  - D. immigration and deaths
  
8. What is the reestablishment of a damaged ecosystem in an area where the soil is intact?
  - A. pioneer succession
  - B. primary succession
  - C. secondary succession
  - D. symbiotic succession
  
9. Zebra herds that live and move together are an example of what type of dispersion?
  - A. clumped dispersion
  - B. uniform dispersion
  - C. random dispersion
  - D. territorial dispersion
  
10. Which of these often describes an ecosystem with high biodiversity?
  - A. resilient
  - B. competitive
  - C. susceptible to disease
  - D. challenging to survival

11. Which of these is true when individuals in a population usually tend to produce more than one offspring?
- A. individuals tend to die quickly
  - B. populations remain stable in size
  - C. populations tend to increase in size
  - D. the number of individuals declines rapidly
12. The graph shows the population size of *Daphnia* over time.



What type of population growth is shown in the graph?

- A. logistic growth
- B. exponential growth
- C. carrying capacity growth
- D. density-dependent growth

13. What does it mean to say that most large mammals have type 1 survivorship curves?
- A. roughly equal survivorship rates at all ages
  - B. high numbers of offspring so that a few will survive
  - C. very high levels of predation and uniform dispersion
  - D. low infant mortality and high rates of survival into old age
14. Diseases may spread more rapidly when an area is crowded, so disease is considered to be a \_\_\_\_\_.
- A. population crasher
  - B. type I survivorship curve
  - C. requirement for logistic growth
  - D. density-dependent limiting factor
15. Fourteen beavers live in a pond with an area of 2 square kilometers. What is the population density of the beavers?
- A. 7 beavers per square kilometer
  - B. 14 beavers per square kilometer
  - C. 16 beavers per square kilometer
  - D. 28 beavers per square kilometer