Name _____ Class _____ Date _____

Active Reading

Section: How Populations Change in Size

Read the passage below and answer the questions that follow.

Over time, the growth rates of populations change because birth rates and death rates increase or decrease. Growth rates can be positive, negative, or zero. For a population's growth rate to be zero, the average number of births must equal the average number of deaths. A population would remain the same size if each pair of adults produced exactly two offspring, and each of those offspring survived to reproduce. If the adults in a population are not replaced by new births, the growth rate will be negative and the population will shrink.

IDENTIFYING MAIN IDEAS

One reading skill is the ability to identify the main idea of a passage. The main idea is the main focus or key idea. Frequently, a main idea is accompanied by supporting information that offers detailed facts about main ideas.

In the space provided, write the letter of the term or phrase that best matches the description.

_____ 1. The average number of deaths is greater than the average number of births.

_____ 2. The average number of deaths equals the average number of births.

_____ 3. The average number of births is greater than the average number of deaths.

a. positive growth rate

b. negative growth rate

c. zero growth rate

4. Growth rate is the birth rate minus the

_____

5. Suppose that every year, one half of the population has two offspring per person, and the other half has none. If all members of the population die after a year, what is the resulting growth rate? Explain your answer.

_____

_____

_____

SEQUENCING INFORMATION

One reading skill is the ability to sequence information, or to logically place items or events in the order in which they occur.

Sequence the statements below to illustrate zero population growth. Write "1" on the line in front of the first step, "2" on the line in front of the second step, and so on.

_____ **6.** The population size returns to what it was in year x.

_____ **7.** Two adults produce two offspring in year x.

_____ **8.** The offspring, as adults, reproduce one offspring each.

_____ **9.** The parents die.

RECOGNIZING SIMILARITIES AND DIFFERENCES

One reading skill is the ability to recognize similarities and differences between two phrases, ideas, or things. This is sometimes known as comparing and contrasting.

Read each question and write the answer in the space provided.

10. Explain the difference between negative growth rate and zero growth rate.

_____

_____

_____

11. What is similar about negative growth rate and zero growth rate?

_____

_____

_____

RECOGNIZING CAUSE AND EFFECT

One reading skill is the ability to recognize cause and effect.

Read the question and write the answer in the space provided.

12. What would be the result if a population did not replace its deaths with new births?

_____

_____