

Chapter 18 Classification**Section Review 18-2****Reviewing Key Concepts**

Short Answer *On the lines provided, answer the following questions.*

1. In the system of evolutionary classification, why do scientists classify different species into the same genus?

2. How is evolutionary classification different from Linnaeus's system of classification?

3. What type of characteristic is considered in a cladistic analysis?

4. How are DNA mutations used in molecular clocks?

Completion *On the lines provided, complete the following sentences.*

5. Cladistic analysis focuses on _____, unique features that appear in some organisms but not in others.

6. Perhaps because of their important role in transmitting genetic information, _____ and _____ are similar across all forms of life and provide a means of comparing organisms that would otherwise seem to have little in common.

7. By examining sequences of DNA, scientists have found that the _____ of dissimilar organisms share many important similarities that may be used as criteria for classification.

Reviewing Key Skills

8. **Applying Concepts** Give an example in which DNA comparisons showed a surprising relationship among particular kinds of organisms.

9. **Inferring** A scientist analyzes the insulin molecules, which are proteins, of three different species, A, B, and C. The insulin from A is different from B in six ways and from C in three ways. The insulin from B is different from C in two ways. Which two species appear to be most closely related? Explain your answer.
