

Name \_\_\_\_\_

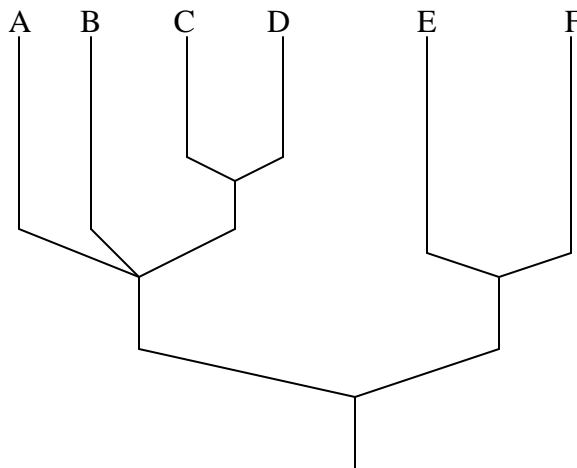
# Cladistics Test

For problems 1-3, match each word to its definition.

- |                  |   |
|------------------|---|
| 1. ___ cladogram | a) the study of how animals are related and how they evolved                                    |
| 2. ___ trait     | b) a feature that an animal evolved   |
| 3. ___ node      | c) a scientific diagram that shows how animals are related and how they evolved                 |
|                  | d) a branching point on a cladogram. It represents a common ancestor and a newly-evolved trait. |

For the diagram below, clearly label the following terms on the diagram:

4. *branch*
5. *node*
6. *clade (outline a clade)*
7. *most recent common ancestor of D and C*
8. *most recent common ancestor of B and C*
9. *most recent common ancestor of E and C*



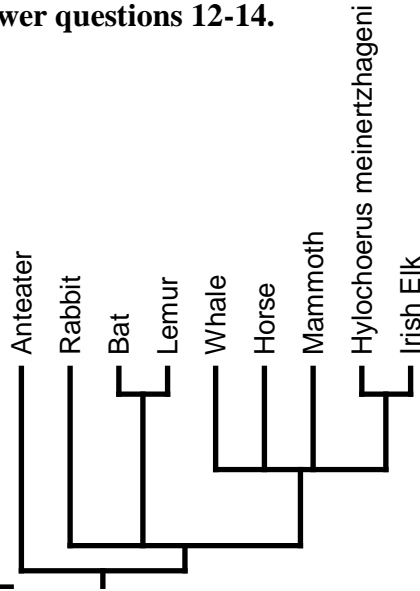
10. What's the difference between primitive traits and advanced traits on a cladogram? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

11. Name two things you can learn about evolution by using a cladogram.

a. \_\_\_\_\_  
 \_\_\_\_\_

b. \_\_\_\_\_  
 \_\_\_\_\_

Use the cladogram below to answer questions 12-14.



12. What animal is most closely related to the bat? \_\_\_\_\_  
 How can you tell? \_\_\_\_\_  
 \_\_\_\_\_

13. Is the rabbit more closely related to the anteater or the lemur?  
 \_\_\_\_\_  
 How can you tell? \_\_\_\_\_  
 \_\_\_\_\_

14. Is the bat more closely related to the rabbit or the horse? \_\_\_\_\_

How do you know? \_\_\_\_\_

---

---

15. Label every node and branch in the cladogram to fit the story below. Two nodes are labeled for you.

*Long, long ago, slugs were pretty common, but then they started evolving. Some slugs evolved the trait of a shell, while some remained with no shell. Some of those who evolved a shell soon evolved a larger mouth, while others kept the trait of a normal-sized mouth. Some slugs without a shell evolved the trait of better vision, while others kept normal vision. Finally, some slugs with no shell and normal vision evolved poisonous skin, but some slugs with no shell and normal vision kept normal skin.*

