**Phylogenetic Trees Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



**Answer true or false to the following statements.**

1. \_\_\_\_\_\_ Dogs belong to the order Felidae.
2. \_\_\_\_\_\_ A fox belongs to the phylum Arthropoda.
3. \_\_\_\_\_\_ Snakes belong to the phylum Reptilia.
4. \_\_\_\_\_\_ Lions belong to the class Mammalia
5. \_\_\_\_\_\_ All arthropods belong to the Class Insecta
6. \_\_\_\_\_\_ All rodents belong to the phylum Chordata.
7. \_\_\_\_\_\_ All amphibians belong to the class Reptilia.
8. \_\_\_\_\_\_\_ All primates are mammals.
9. \_\_\_\_\_\_\_ The class Mammalia includes dogs, cats and rats.
10. \_\_\_\_\_\_ A lion belongs to the genus Felis.
11. \_\_\_\_\_\_ All mammals are primates.
12. \_\_\_\_\_\_ Insects and lobsters are arthropods.

**In each set, circle the pair that is most closely related.**

13. snakes & crocodiles | snakes & frogs
14. rats & cats | cats & dogs
15. insects & lobsters | insects & birds
16. lions & tigers | lions & cougars
17. foxes & rats | foxes & dogs
18. cats & dogs | cats & lions

**17. List (use species name) all the animals pictured that belong in the Felidae family.**

 **18. List all the animals pictured that belong to the Carnivora order.**

**Analyze the Cladogram**

Examine the sample cladogram, each letter on the diagram points to a derived character, or something different (or newer) than what was seen in previous groups. Match the letter to its character. *Note: this cladogram was created for simplicity and understanding, it does not represent the established phylogeny for insects and their relatives.*



1. \_\_\_\_\_\_ Wings
2. \_\_\_\_\_\_ 6 Legs
3. \_\_\_\_\_\_ Segmented Body
4. \_\_\_\_\_\_ Double set of wings
5. \_\_\_\_\_\_ Jumping Legs
6. \_\_\_\_\_\_ Crushing mouthparts
7. \_\_\_\_\_\_ Legs
8. \_\_\_\_\_\_ Curly Antennae