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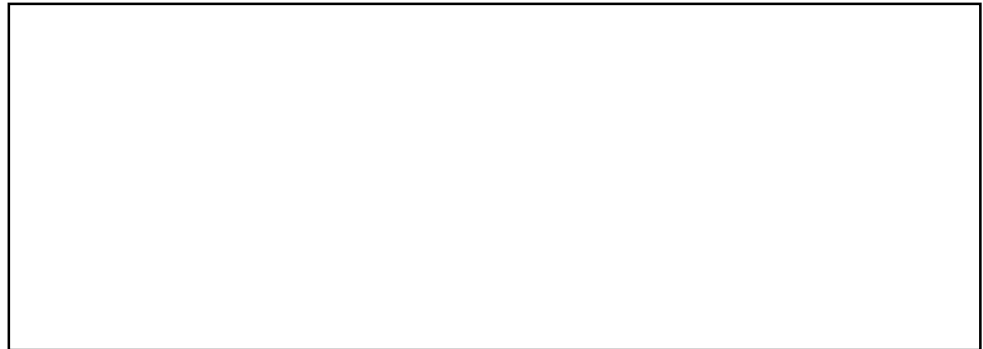
AP Biology

Date \_\_\_\_\_

**CLASSIFICATION / TAXONOMY / SYSTEMATICS REVIEW**

**DOMAINS**

1. Draw a phylogenetic tree (an evolutionary tree diagram) illustrating the relationship between the three domains.



2. In the table below outline the key characteristics that distinguish the three domains. Include examples of organisms in each domain.

<b>DOMAIN</b>	<b>CHARACTERISTICS</b>	<b>EXAMPLES</b>

**EUKARYOTIC KINGDOMS**

3. In the table below outline the key characteristics that distinguish the four kingdoms of the Domain Eukarya by making notes on the following: (1) mode of nutrition, (2) presence or absence of cell wall, (3) method(s) of reproduction, and (4) any other notable characteristic.

<b>KINGDOM</b>	<b>MODE OF NUTRITION</b>	<b>CELL WALL</b>	<b>REPRODUCTION</b>	<b>OTHER</b>

**EUKARYOTES: PLANTS**

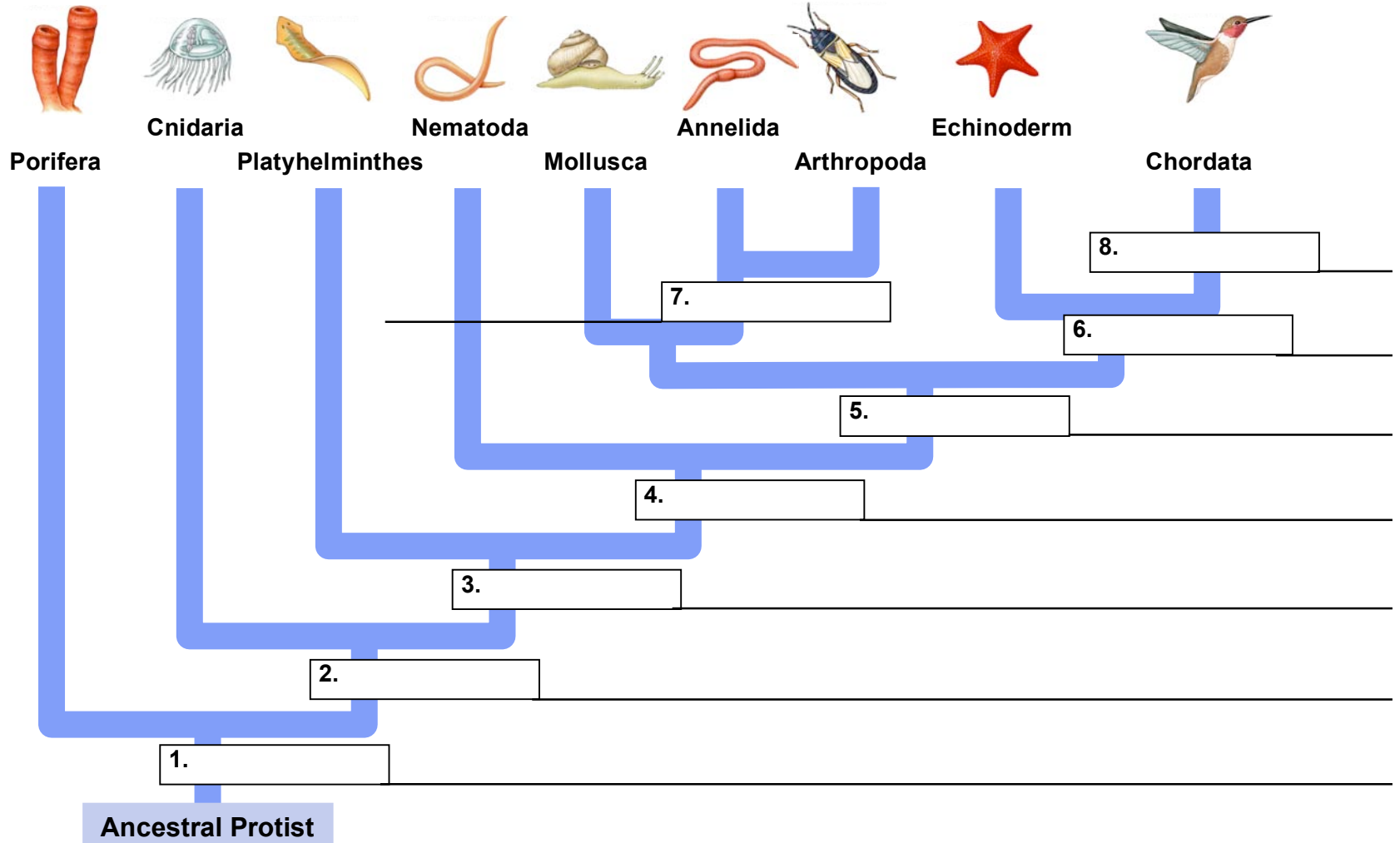
4. Draw a phylogenetic tree illustrating the relationship between the four groups of land plants. Note the key characteristic that distinguishes each major branch.

5. In the table below outline the key characteristics that distinguish the four groups of land plants by making notes on the following: (1) presence or absence of vascular system, (2) dominance of gametophyte vs. sporophyte, (3) mode of reproduction, and (4) any other notable characteristic.

PLANT GROUP	VASCULAR SYSTEM	GAMETOPHYTE & SPOROPHYTE	REPRODUCTION	OTHER

**EUKARYOTES: ANIMALS**

6. Complete the diagram below: (1) label the key advance at each evolutionary branch point, and (2) explain the significance of each evolutionary advance.



Name \_\_\_\_\_

7. In the table below outline the key characteristics that distinguish the groups of the Kingdom Animalia by making notes on the following: (1) type of symmetry, (2) presence of coelom, (3) presence of segmentation, (4) soft body vs. exoskeleton vs. endoskeleton, and (5) any other notable characteristic (e.g., proto- vs. deutersotome, etc.). Also include examples of organisms in each group.

<b>ANIMAL GROUP</b>	<b>SYMMETRY</b>	<b>COELOM</b>	<b>SEGMENT- ATION</b>	<b>BODY</b>	<b>OTHER</b>	<b>EXAMPLES/ COMMON NAME</b>

**EUKARYOTES: ANIMALS: VERTEBRATES**

8. In the table below outline the key characteristics that distinguish the five subgroups of the Vertebrates by making notes on the following: (1) body structure & type of body covering, (2) structure used for gas exchange, (3) structure of heart, (4) ectotherm vs. endotherm, (5) mode of fertilization (internal vs. external), (6) mode of development (internal vs. external & what kind of egg), and (7) any other notable characteristics. Also include examples of organisms in each group.

<b>VERTEBRATE SUBGROUP</b>	<b>BODY</b>	<b>GAS EXCHANGE</b>	<b>HEART</b>	<b>ECTO- VS. ENDOTHERM</b>	<b>FERTILIZATION</b>	<b>DEVELOPMENT</b>	<b>OTHER</b>	<b>EXAMPLES</b>

Name \_\_\_\_\_

**EUKARYOTES: ANIMALS: VERTEBRATES: MAMMALS**

9. In the table below outline the key characteristics that distinguish the 3 subgroups of the Mammals by making notes on the following: (1) mode of development, (2) care of the young, (3) any other notable characteristic. Also include examples of organisms in each subgroup.

<b>MAMMAL SUBGROUP</b>	<b>CHARACTERISTICS</b>	<b>EXAMPLE</b>