

Name \_\_\_\_\_

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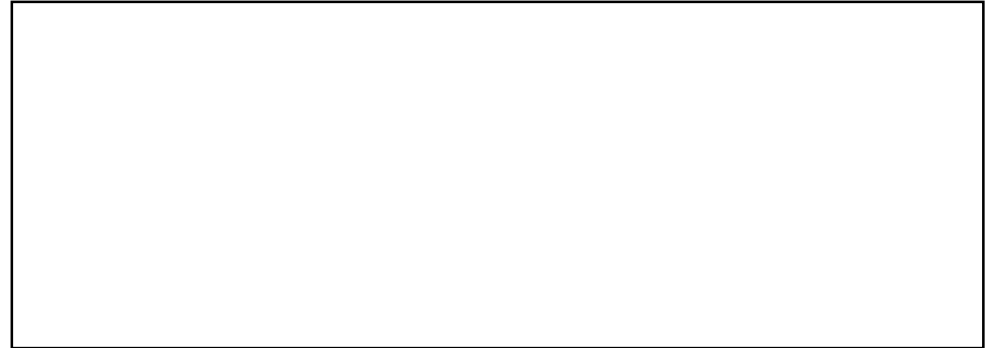
AP Biology

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.

DOMAIN	CHARACTERISTICS	EXAMPLES

Name \_\_\_\_\_

AP Biology

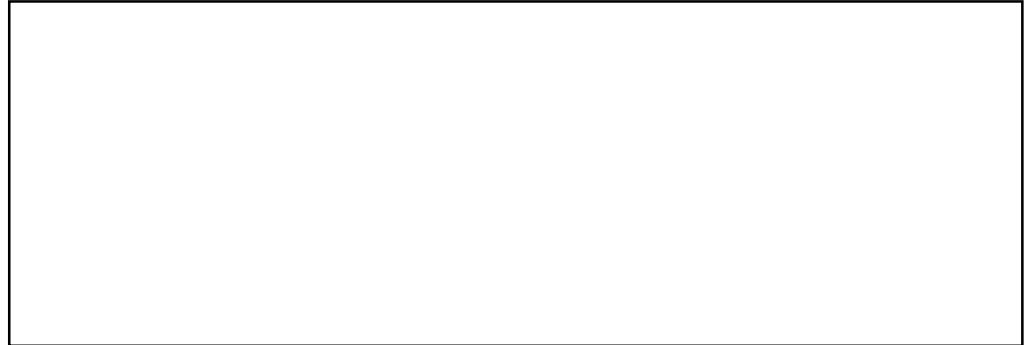
## EUKARYOTIC KINGDOMS

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.

KINGDOM	MODE OF NUTRITION	CELL WALL	REPRODUCTION	OTHER

**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.

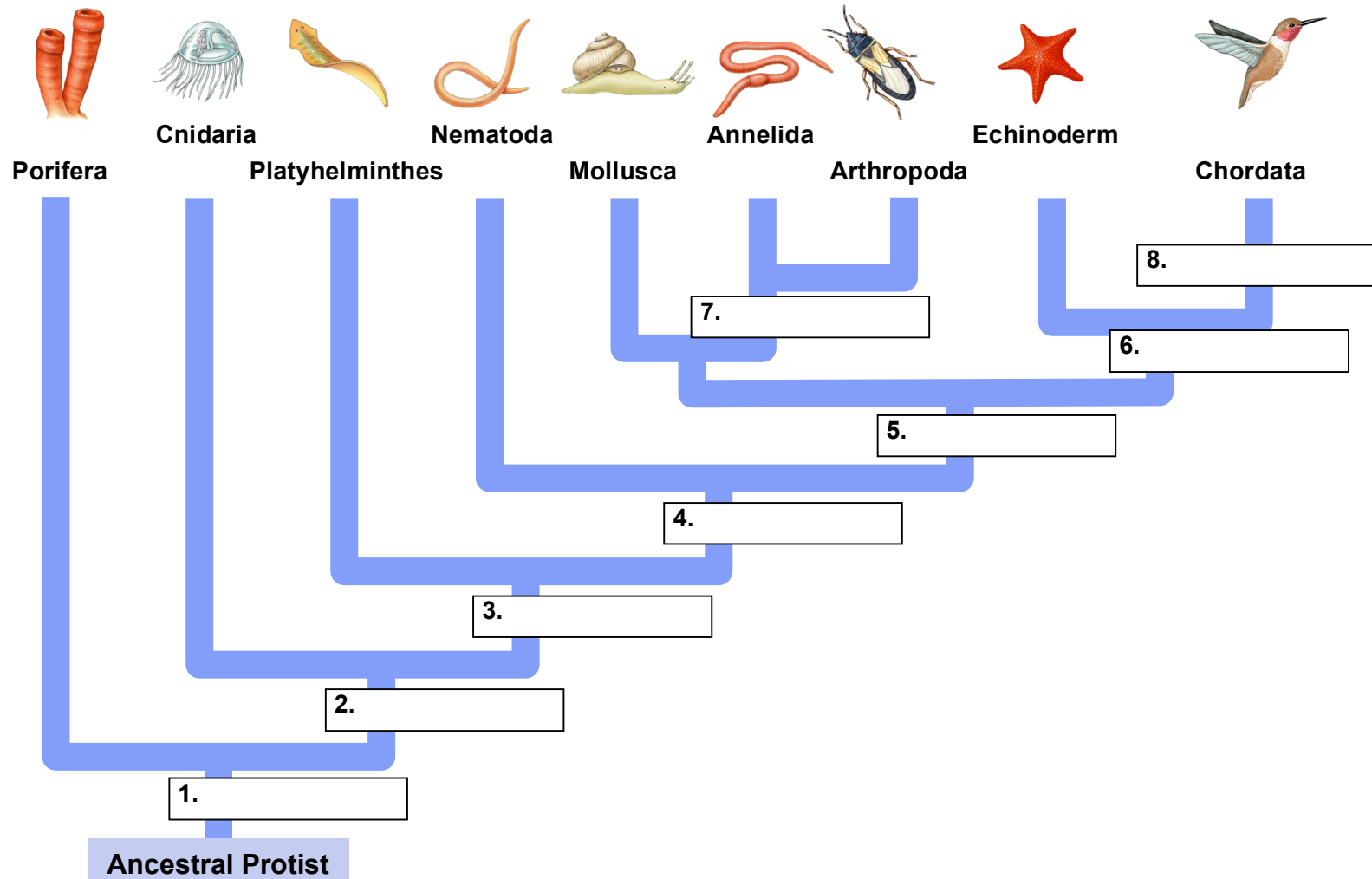


5. In the table below outline the key characteristics that distinguish the four groups of land plants by making notes on the following: (1) presence or absence of vascular system, (2) dominance of gametophyte vs. sporophyte, (3) mode of reproduction, and (4) any other notable characteristic.

PLANT GROUP	VASCULAR SYSTEM	GAMETOPHYTE & SPOROPHYTE	REPRODUCTION	OTHER

**EUKARYOTES: ANIMALS**

6. Label the diagram below by (1) listing the common name of each of the groups in the Kingdom Animalia, (2) labeling the key advances at each evolutionary branch point, and (3) explaining the significance of each evolutionary advance. (The lecture Powerpoint, diagram 31.3 (p. 621 of the textbook), and the discussion in the text of that diagram will be helpful.)



Name \_\_\_\_\_

AP Biology

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. Also include examples of organisms in each group.

ANIMAL GROUP	SYMMETRY	COELOM	SEGMENT- ATION	BODY	OTHER	EXAMPLES

**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, (6) mode of development, and (7) any other notable characteristic. 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>FERTILIZ- ATION</b>	<b>DEVELOP- MENT</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.

MAMMAL SUBGROUP	CHARACTERISTICS	EXAMPLE