Name _____ Class _____ Date _____

SECTION 38-1 REVIEW

PHYLUM ARTHROPODA

VOCABULARY REVIEW Define the following terms.

1. arthropod _____

_____

2. compound eye _____

_____

3. tagma _____

_____

4. chelicerae _____

_____

MULTIPLE CHOICE Write the correct letter in the blank.

_____ **1.** An arthropod's exoskeleton performs all of the following functions except

a. producing gametes.
b. protecting internal organs.
c. supporting the animal's weight.
d. helping prevent desiccation.

_____ **2.** One feature that arthropods share with annelids is

a. a closed circulatory system.
b. jointed appendages.
c. a ventral nerve cord.
d. a lack of cephalization.

_____ **3.** An arthropod sheds its old exoskeleton when

a. the old exoskeleton wears out.
b. the new exoskeleton exerts pressure on the epidermis.
c. the animal is 1–2 years old.
d. a hormone is produced that induces molting.

_____ **4.** Ancestral arthropods probably had

a. no coelom.
b. one pair of appendages on every segment.
c. bodies consisting of a few, highly specialized tagmata.
d. endoskeletons.

_____ **5.** The subphylum Crustacea includes

a. insects. **b.** spiders. **c.** ticks. **d.** shrimps.

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SHORT ANSWER **Answer the questions in the space provided.**

1. What substance makes an arthropod's exoskeleton repel water, and where is this substance located?

_____

2. What substance makes some arthropods' exoskeletons hard, and where is this substance located?

_____

3. List two examples of arthropod appendages. _____

4. Identify three ways that arthropods show cephalization. _____

_____

_____

5. **Critical Thinking** The extinct animal *Marella* is thought to have been a distant ancestor of some living arthropods. *Marella* had branched legs and unbranched antennae. Why is it difficult to place *Marella* in any of the subphyla of living arthropods? _____

_____

_____

STRUCTURES AND FUNCTIONS **The diagram below shows a phylogenetic tree of living arthropods. In the blank spaces at the top of the diagram, write the names of the animals that belong on each branch of the tree. Some spaces will have more than one name. Choose the names from the following list:**

spider	mite	horseshoe crab	sea spider
shrimp	insect	millipede	scorpion
centipede