

This exercise replaces your quiz and homework grade for the Invertebrate Diversity lab. First read through the Invertebrate Diversity section of your lab manual. You can use the web or a textbook if you have difficulty understanding anything. You need to have complete and well thought out answers that are typed on a separate sheet of paper. If you have any questions, feel free to contact your TAs.

1. (1 pt.) What are the seven main categories in the Linnaean hierarchy?
2. (1 pt.) Choose two of the following five species of invertebrates and write down their full classification using the seven categories you listed in your answer to question 1: honey bee, American lobster, common octopus, zebra mussel, and Portuguese-man-of-war. For help, compare with the example in the lab manual.
3. (1 pt.) Correct the following statements about the Linnaean hierarchy to make them true.
 - a. Class is a more inclusive category than phylum.
 - b. The phylum Animalia includes all animals.
 - c. The sponges belong to the order Porifera and represent some of the simplest animal forms.
4. (1 pt.) Explain in one or two sentences each of the six major animal characteristics listed in Table 3 of the lab manual.
5. (2 pt.) Compare the four animal phyla covered in the lab with respect to the characteristics in Table 3. Write up your comparison in a short paragraph, stating which characteristics are shared by which phyla and which are unique to them.
6. (2 pt.) In a brief paragraph, describe how animals in the four phyla covered in the lab obtain their food.
7. (2 pt.) In a brief paragraph, describe how animals in these four phyla obtain oxygen.
8. (1 pt.) Compare insect skeletons to ours. What are the differences and what are the similarities?
9. (1 pt.) How is insect nervous system different from the vertebrate one?
10. (3 pt.) Choose two animal phyla that are NOT covered in the lab and describe them with respect to all the features mentioned in Table 3 of your lab manual. For information about other animal phyla, you can use your textbook, the Internet, or any other source, but be sure to cite the source you used.