

Name _____ Date _____ Period _____

HONORS BIOLOGY – PROBLEM SET

CHAPTER 15a: PHYLOGENY AND THE TREE OF LIFE

1. Create a dichotomous key based on the following imaginary animals: [3 points]

1	A. Body covered with hair	Go to 2
	B. Body covering is not hair	Go to 6
2	A. Has four legs	Go to 3
	B. Has more than four legs.	Go to 4
3	A. Has two heads and two tails	Double Trouble
	B. Has one head and a short bushy tail	Grenabar
4	A. Has one horn on its head	Tamboro
	B. Has two horns on head	Go to 5
5	A. Has wheels for feet	Skateroo
	B. Has feet with three sharp claws	Dweezlebug
6	A. Body covered with scales	Go to 7
	B. Body covered with feathers	Go to 8
7	A. Has flippers for its six feet and tail	Nessie
	B. Has pincers for its six feet and has a long forked tail	Marfwheelzel
8	A. Has beak with no teeth	Go to 9
	B. Has mouth with sharp teeth	Tearitup
9	A. Has two antennae and short tongue	Quib
	B. Has four antennae and long tongue	Ork

2. Provide the FULL BIOLOGICAL CLASSIFICATION for each of the following six organisms. You will need to list each level from domain to species. Use searches on Google and Wikipedia to assist you in your research. NOTE: In plants, the term *division* replaces the term *phylum*. [6 points]

- Mr. Zunick (#1 science teacher in NJ! ☺)
- "Lucy" (early human hominid)
- beef tapeworm (long tapeworm that lives and grows in your intestines)
- Fraser fir tree (Christmas tree)
- granny smith apple tree (a cross between TWO species – name both!)
- Candidiasis albicans* (yeast infection – ouch!)

3. What is the main reason why classification is a "work in progress"? In other words, why do scientists continuously re-examine how organisms are classified? How is our current knowledge of classification different from that of 300 years ago? [1 point]