**Chapter 16 – Darwin and Natural Selection** Name:

1. What variation do you notice in the Cuban tree snails?

2. What is the definition of evolution?

3. What 3 patterns of biodiversity did Darwin note?

a)

b)

c)

4. Where did Darwin’s voyage on the Beagle take him?

5. How do Galapagos tortoises vary?

6. How do fossils help us study evolution?

7. How did Hutton and Lyell contribute to Darwin’s ideas?

8. What did the earthquake he witnessed in South America show Darwin?

9. State Lamarck’s hypothesis as to why animals change:

10. How do we know that this is NOT how organisms change?

11. What did Malthus conclude about population growth?

12. What is artificial selection?

13. Why didn’t Darwin publish his ideas right away?

14. What finally pushed him to publish in 1859?

15. So the question became – why does nature prefer some phenotypes over others? What do organisms adapt to?

16. Define fitness:

17. Define mimicry:

18. What is camouflage?

19. In Figure 16 – 10, explain why the grasshopper population changes: