Algebra II

**SHOW ALL WORK!**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section 9.1

Exponential Functions

**Sketch the graph of each function. Then state the function’s domain and range.**

1. 

2. 

3. 

4. 

**Determine whether each function represents exponential *growth* or *decay*.**

5. 

6. 

7. 

**Write an exponential function whose graph passes through the given points. If necessary, round *“b”* to the nearest thousandth.**

8. (0,-0.4) and (2,-10)

9. (0,-3) and (1,-1.5)

10. (0,1) and (-1,4)

11. From the 1990 census, the population of Tea was 786. In the 2000 census, the population had grown to 1742.

a. Write an exponential function for Tea’s population.

b. Use your function to predict Tea’s population for 2007.

c. Use your function to predict Tea’s population for 2010.

**Solve each equation or inequality. Check your solution.**

12. 

13. 

14. 

15. 

16. 

17. 