Honors Pre-Calc/Trig Unit 3 Exponential and Logarithmic Assessment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_\_\_\_\_

Level 2

**Evaluate**:

1. 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. ln(e) 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. 7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. 8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. log 100 9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. 10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Use Properties to Expand/Condense**

11. 11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. 12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Rewire as from Exponential to Log or Log to Exponential form**

13. 13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. 14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. 15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Level 3

Solve for x. Show your work.

16. 16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. 17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. 18. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. 19. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

20. 20. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

21. 21. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22. 22. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Level 4

1. If

2. The area of a wound is modeled by the equations, , where is the initial area in cm, r is the rate of change, and t is the time in years find the following. If the initial cut on your arm is 12 cm, and it is healing at a rate of 18.25% how long would you expect it to take to heal to an area of 1 cm?

3.