Review Sect 9.1-9.3

NO CALCULATOR Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Sect 9.1**

1) **Sketch the graph of each function and state the range and domain.**

a) y = 3(2)x b) y = 2(½)x

domain:\_\_\_\_\_\_\_\_\_\_\_ range:\_\_\_\_\_\_\_\_\_\_\_\_\_ domain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ range:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) **Determine whether each function represents an exponential function?**

a) y = x2 + 4x b) y = 2(-7)x c) y = 9(5)2

d) e)

x y

x y

5 20 1 1

10 40 2 2

15 60 3 4

20 80 4 8

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

3) y = 7(0.3)x 4) y = 0.62(8)x 5) y = 6 6) y = 

**Write an exponential function whose graph passes through the given points. You MUST show work!!**

7) (0, 4) and (2, 9) 8) (1, 3) and (2, 48)

9) (2, 8) and (0, 32) 10) (4, 48) and (2, 12)

**11) Solve each equation.**

a) 27x  = 32x +3 b) 64x - 10 = 86x c) 9x - 1 = 

**Sect 9.2**

**Solve for x.**

1) log2x = 16 2) logx = 5 3) log4x = 

4) log5625 = x 5) log3() = x 6) log41 = x

7) logx81 = 4 8)  = -6 9) logx81 = 

**10) Solve each equation. Remember to check your solutions.**

a) log3 (-2x) = log3 16 b) log2 (x2 – 2x) = log2 15

**Sect 9.3**

**Find the given logarithm if log 2 = a, log 3 = b and log 7 = c.**

1) log 42 2) log  3) log 56

4) log 600 5) log 0.014 6) log 90

**Write each expression as a single logarithm.**

7) log35 + 2log33 8) 2log7 4 – 3log7 2 9) log2225 - log25 + log23

**Solve each equation. Remember to check your solutions.**

10) log3 16 – log3 (2x) = log3 2 11) logx + log (x+3) = 1

12) log2 x = 5log2 2 – log2 8 13) log6 x + log6 9 = 2