

MATH 1314

Chapter 4.5: Exponential and Logarithmic Equations

SOLVE.

$$5^x = 83$$

$$3^{2x-6} = 81$$

$$10^{5+2x} + 820 = 49600$$

$$4^{2x-7} = 5^{3x+1}$$

Solve.

$$e^{2x} + 5e^x - 36 = 0$$

$$\log_2(3x-4) = \log_2(x+2)$$

$$\log(x-4) = \log(x+6) - \log(x)$$

$$4\log_3(2x-7) = 8$$

How long will \$1000 take to grow to \$3600 at 8% interest compounding quarterly?

HINT: $A = P \left(1 + \frac{R}{N}\right)^{Nt}$