1. Let y = (1.091)x. Use a graph to estimate x if y = 2.

2. An investment of $1,235 increased to $7,652 in 13 years. If the interest was compounded continuously, find the interest rate.

3. Find the zeros of f(x) = x3(5e5x) + 4x2e5x

4. Simplify the expression.

5. Estimate y if x = 40.

y = e0.07x

6. Change to exponential form.

log5 = -3

7. Change to exponential form.

ln x = 0.9.

8. Find the number.

log88

9. Solve the equation.

log2x = log2(10-x)

10. Express in terms of logarithms of positive real numbers x,y, z, w.

log2

11. Find the exact solution using common logarithms and a two-decimal -place approximation of the solution of the equation.

9x+5 = 71-4x

12. Find the solution(s) of the equation.

3x + 81(3-x) = 30.

13. Use the change of base formula to approximate the y-intercept.

f(x) = log2(x+11)

14. Solve the equation.

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