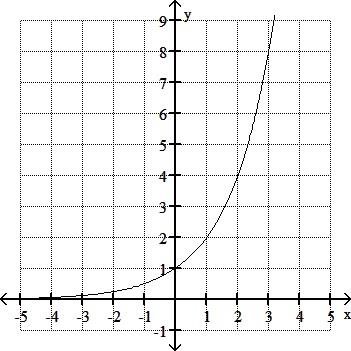
1. For a certain family of 4, gross income per month is given by 𝐺(𝑥) = 30𝑥 + 3000, where 𝑥 represents the number of hours worked in that month. Find the inverse function 𝐺−1(𝑥).

1. Find a function whose graph is as shown.



1. You receive a lump sum amount of $20,000. You invest that money in a certificate of deposit that pays 2% interest compounded monthly. How much money will you have at the end of 10 years?

1. Solve the following system of equations: 𝑦 = 3𝑥 + 1

4𝑥 − 5𝑦 = 6

1. Find each of the following, you must use your calculator.
   1. Log 45

* 1. LN 45

1. Express as a sum or difference of logarithms.
   1. LN abc

* 1. Log N/M

1. Express as a sum or difference of logarithms. LN (2/(3x3yz3))

1. Calculate the following. Log64(1/8) = x

1. Find the doubling time if the initial population is 438,000 and the growth rate is 4.4%.

1. Solve the system of inequalities. Graph your solution.

x + y ≤ 4 x – y ≥ 3