



You solve an exponential equation by taking the logarithm of both sides. Logarithm equation is the inverse operation of exponential equation. You solve a multiplication equation by dividing both sides.

[1] Division is the inverse operation of multiplication.

[2] As  $n$  gets larger, the value of the expression gets closer and closer to the value of  $e$ .

Natural logarithms are the inverse of  $y = e^x$ ; common logarithms are the inverse of  $y = 10^x$ ; the product property, quotient property and the power property are true for both natural logarithms and common

[3] logarithms.

Answers may vary. Sample: How many years will it take to double an investment of any amount at 6%

[4] interest compounded continuously? 11.6 years