7-6 Exponential and Logarithmic Functions

Natural Logarithmic Function

$f(x) = e^x$

$(1, e)$

$(e, 1)$

$(0, 1)$

$(1, 0)$

$f^{-1}(x) = \ln(x)$
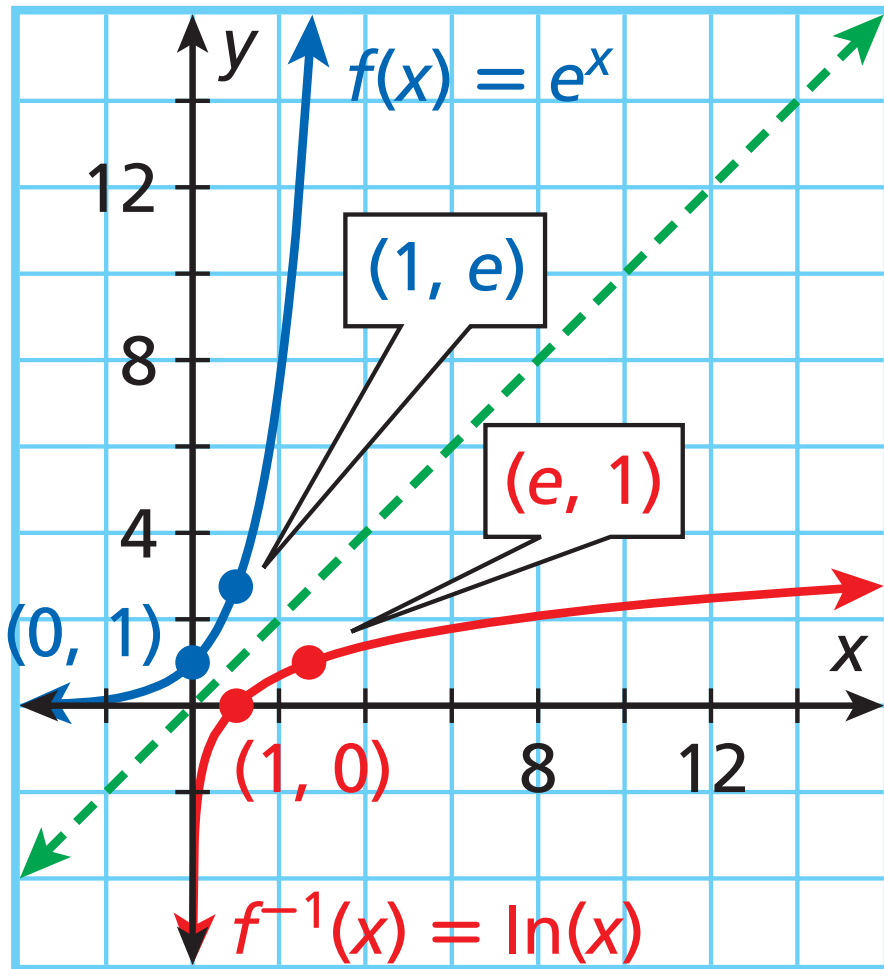
Half-Life

N_0 is the initial amount (at $t = 0$). k is the decay constant.

$$N(t) = N_0 e^{-kt}$$

$N(t)$ is the amount remaining. t is the time.

Holt Algebra 2