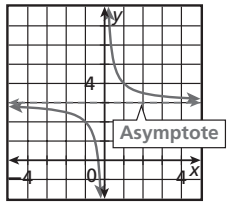
Chapter 7 (p. 490, 7-1)

asymptote

asymptote: A line that a graph approaches as the value of a variable becomes extremely large or small.



Chapter 7 (p. 490, 7-1)

base of an exponential function

base of an exponential function: The value of b in a function of the form $f(x) = ab^x$, where a and b are real numbers with $a \neq 0$, $b > 0$, and $b \neq 1$.

$f(x) = 5(\underset{\text{base}}{2})^x$

Chapter 7 (p. 506, 7-3)

common logarithm

common logarithm: A logarithm whose base is 10, denoted $\log_{10}$ or just log.

$\log 100 = \log_{10} 100 = 2$, since $10^2 = 100$.

Chapter 7 (p. 522, 7-5)

exponential equation

exponential equation: An equation that contains one or more exponential expressions.

$2^{x+1} = 8$

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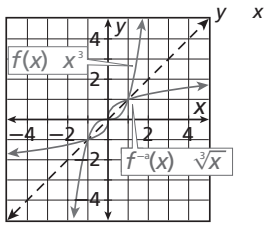
Chapter 7 (p. 499, 7-2)

inverse function

inverse function: The function that results from exchanging the input and output values of a one-to-one function. The inverse of $f(x)$ is denoted $f^{-1}(x)$.



Chapter 7 (p. 523, 7-5)

logarithmic equation

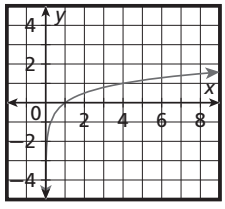
logarithmic equation: An equation that contains a logarithm of a variable.

$\log x + 3 = 7$

Chapter 7 (p. 507, 7-3)

logarithmic function

logarithmic function: A function of the form $f(x) = \log_b x$, where $b \neq 1$ and $b > 0$, which is the inverse of the exponential function $f(x) = b^x$.



$f(x) = \log_4 x$

Chapter 7 (p. 531, 7-6)

natural logarithm

natural logarithm: A logarithm with base e, written as ln.

$\ln 5 = \log_e 5 \approx 1.6$

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