Name: _____ Date: _____

Chapter 8 Study Guide

This study guide is based on questions from the Chapter 8 Practice Test in the student resource.

Question	I can …	Help Needed	Refer to
#1	sketch and determine the characteristics of the graph of $y = \log_c x$, $c > 0$, $c \neq 1$	❑ some ❑ none	Section 8.1 Example 3
#2	express a logarithmic function as an exponential function and vice versa	❑ some ❑ none	Section 8.1 Link the Ideas
#3	explain the effects of the parameters a, b, h, and k in $y = a \log_c (b(x - h)) + k$ on the graph of $y = \log_c x$, where $c > 1$	❑ some ❑ none	Section 8.2 Examples 1, 2
#4	determine an equivalent form of a logarithmic expression using the laws of logarithms	❑ some ❑ none	Section 8.3 Example 1
#5	determine an equivalent form of a logarithmic expression using the laws of logarithms	❑ some ❑ none	Section 8.3 Example 1
#6	solve a problem by applying the laws of logarithms to logarithmic scales	❑ some ❑ none	Section 8.3 Example 4
#7	solve a logarithmic equation and verify the solution	❑ some ❑ none	Section 8.4 Example 1
#8	evaluate logarithms using a variety of methods	❑ some ❑ none	Section 8.1 Example 2
#9	explain the effects of the parameters a, b, h, and k in $y = a \log_c (b(x - h)) + k$ on the graph of $y = \log_c x$, where $c > 1$	❑ some ❑ none	Section 8.2 Examples 1, 2
#10	sketch the graph of a logarithmic function by applying a set of transformations to the graph of $y = \log_c x$, where $c > 1$, and state the characteristics of the graph	❑ some ❑ none	Section 8.2 Examples 1, 2
#11	solve a logarithmic equation and verify the solution	❑ some ❑ none	Section 8.4 Example 1
#12	solve an exponential equation in which the bases are not powers of one another	❑ some ❑ none	Section 8.4 Example 2
#13	solve a problem that involves the application of exponential equations to loans, mortgages, and investments	❑ some ❑ none	Section 8.4 Example 4
#14	solve a problem by applying the laws of logarithms to logarithmic scales	❑ some ❑ none	Section 8.3 Example 4
#15	solve a problem by applying the laws of logarithms to logarithmic scales	❑ some ❑ none	Section 8.3 Example 4
#16	solve a problem involving exponential growth or decay	❑ some ❑ none	Section 8.4 Example 4
#17	solve a problem by modelling a situation with an exponential or logarithmic equation	❑ some ❑ none	Section 8.4 Example 3