

## Chapter 8 Study Check

Use the chart below to help you assess the skills and processes you have developed during Chapter 8. The references direct you to pages in *Pre-Calculus 12 Student Workbook* where you can review the skill.

Big Idea	Skills	Things to Remember
Demonstrate an understanding of logarithms pages 260–266	Determine the characteristics and sketch the graph of $y = \log_c x$ , $c > 0$ , $c \neq 1$ pages 260–261	
	Express a logarithmic expression as an exponential expression and vice versa page 261	
	Evaluate logarithms without technology pages 261–262	
	Solve problems using logarithmic functions page 262	
Demonstrate an understanding of transformations of logarithmic functions pages 267–274	Determine the effects of the parameters $a$ , $b$ , $h$ , and $k$ in $y = a \log_c (b(x - h)) + k$ on the graph of $y = \log_c x$ pages 267–270	
	Sketch the graph of a logarithmic function by applying translations or stretches and/or reflections to the graph of $y = \log_c x$ pages 267–269	
	Sketch the graph of a logarithmic function by applying a combination of transformations to the graph of $y = \log_c x$ page 270	
Demonstrate an understanding of the laws of logarithms pages 275–281	Expand expressions using the laws of logarithms pages 275–276	
	Determine an equivalent form of a logarithmic expression using the laws of logarithms page 276	
	Apply the laws of logarithms to logarithmic scales page 276	

Big Idea	Skills	Things to Remember
Solve problems that involve exponential and logarithmic equations pages 282–291	Solve a logarithmic equation and verify the solution pages 282–284	
	Solve an exponential equation in which the bases are not powers of one another page 285	
	Solve a problem that involves exponential growth page 286	
	Solve a problem that involves exponential decay page 286	