### Chapter 1

* the inverse function of an exponential function is a logarithm
* characteristics of this logarithm
  + Domain:
  + Range:
  + Interval of increase:
  + end behaviour
  + x-intercept of 1
* changing from log to exponent:

### Chapter 2

* transformation on log function
  + Ex:
    - * vertical stretch of 3
      * reflection on y-axis
      * horizontal stretch by 2
      * left 4
      * up 9
  + use mapping rule to find the corresponding point on the transformed log function

### Chapter 3

* simple exponential functions can be solved using two main strategies
  + expressing both sides as powers with a common the base, and then equating the exponents
  + rewriting the equation in log form and simplifying
* is called a common log, it means
* properties to know about log, where and
  + - Ex:

= 5(1)

= 5

### Chapter 4

* exponent laws
* Log laws, where x>0, m>0, n>0, and x

### Chapter 5

* to solve an exponential equation algebraically, take the log of both sides of the equation using a base of 10, and then use the power rule for log to simplify the equation and solve for the unknown
* the exponential equation can also be solved by writing both sides of the equation with the same base, setting the exponents equal to each other, and solving for the unknown
* this chapter requires the student to do more practice/textbook question so that they understand how to apply the log laws or properties when solving the unknown variable in the exponential equation

### Chapter 6

* a log equation can be solved by expressing it in exponential form or by simplifying it using the laws of log
* when solving log equations, be sure to check for inadmissible solutions. Also, remember that the base of a log must be positive.

### Chapter 7

* scales that measure a wide range of values, such as the pH scale, Richter scale, and decibel scale, are logarithmic scales.
* to compare concentrations on the pH scale, intensity on the Richter scale, or sound intensities, determine the quotient between the values being compared.

### Chapter 8

* please refer to Unit 2