

## EXAM 4 OBJECTIVES - MATH 101

The students should be able to:

1. Form compositions of functions.
2. Find the inverse of a given function algebraically.
3. Identify the domain and range for a function and its inverse.
4. Graph the transformation of an exponential or logarithmic function and identify key characteristics (asymptotes, zeros, intercepts)
5. Use the change of base formula to evaluate logarithmic expressions on a calculator.
6. Use the properties of logarithms to write a logarithmic expression as a sum, difference, and/or product of simpler expressions (expand).
7. Use the properties of logarithms to write the sum, difference, and/or product of logarithms as a single logarithm (condense).
8. Solve equations involving exponential or logarithmic expressions.
8. Present solutions in exact form as well as approximate results.
10. Solve compound interest applications for both countable and continuous applications.
11. Find the rate of growth or decay.
12. Solve applications involving a continuous growth or decay model.