Math 3 Review for Test 5A

1. Simplify a) $\sqrt{16e^{10x}}$ b) $\frac{15e^{4+2x}}{3e^{7-x}}$ c) $(5e^{-4x})^3$

2. Graph. Include asymptote and domain and range

a) $y = e^{x+1} - 2$ b) $y = log_3(x - 1) + 3$

3. You have $5000 to invest at 4.6% compounded continuously.
How much interest is earned after 7 years? Use a Ti-84

4. Rewrite the following as either logs or exps.

a) $log_c f = d$ b) $m^p = g$

5. Evaluate without a calculator:

a) $log_6 1 =$ b) $log_3 \frac{1}{81} =$ c) $log_{16} 4 =$

6. Simplify: a) $\frac{27e^{5x-2}}{39e^{x+3}}$ b) e^{ln7x} c) $8^{log_8 2x}$ d) $log_4 16^m$

7. Find the inverse of:

a) $y = 6^{x-3} + 2$ b) y = ln(x+2)

8. Write and solve an equation to find what power of 10 gives you 5.6
Use a Ti-84

9. Put in order from least to greatest:

$log_3 16$ $log_4 5$ $log_2 8$ $log_2 1$