QUIZ 10 - MATH 102

Friday, December 8

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YOUR NAME:_____

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Solve the exponential equation $(\frac{1}{4})^{3x} = 8^{x-1}$.

2. Compute the following values:

   (a) $\log_5 125 =$

   (b) $\log_3 \left(\frac{1}{27}\right) =$

   (c) $\log_{1/8} 2 =$

3. Use a small table of values to graph plot the graph of $f(x) = \log_3 x$.

4. Solve the following equations:

   (a) $\log(x - 11) = 2$

   (b) $\log_3 x + \log_3 5 = 1$

   (c) $\ln(8 - x^3) - \ln(2 - x) = \ln(2x + 5)$