

Quiz 4 - MATH 151

DATE: Week 5, February 11 - 15

INSTRUCTOR: George Voutsadakis

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. (a) Convert the following expressions from exponential to logarithmic form or vice-versa, as appropriate:
 - i. $\log_7 x = 23$ (1 point)
 - ii. $a^5 = 75$ (1 point)(b) Find the values of x and y if $\log_{1/2} x = 5$ and $y = \log_3 \frac{1}{27}$. (3 points)
2. Write the following expression as a single logarithm: $\frac{1}{3} \log_3 (x^3 + 1) - 5 \log_3 (5x - 1)$. (5 points)