

Quiz 5 - MATH 151

DATE: Week 5, February 25 - 29

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. Graph the function **showing clearly all critical points** (5 points)

$$f(x) = \begin{cases} x + 1, & \text{if } x < 0 \\ (\frac{1}{2})^x, & \text{if } x > 0 \end{cases}$$

2. Find the following for the function f of Problem 1. (5 points)

$$\lim_{x \rightarrow 0^-} f(x), \quad \lim_{x \rightarrow 0^+} f(x), \quad \lim_{x \rightarrow 0} f(x).$$