

## Quiz 2 - MATH 151

DATE: Week 3, January 28 - February 1

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. Let  $f(x) = -2(x + 5)^2(x + 7)^4$ .
  - (a) Is  $f$  a polynomial function? What is its degree? (1 point)
  - (b) Identify a power function whose graph resembles the graph of  $f(x)$  for large values of  $x$ . (2 points)
  - (c) Find the end behavior of  $f(x)$ . (2 points)
2. Find the domain of the rational function  $f(x) = \frac{x-3}{x^2-4}$ . (5 points)