

Name: _____

MATH 100

Fall 2021

HW 12: Due 11/15

"Reality continues to ruin my life."

– Bill Watterson

Problem 1. (10pt) Showing all your work, find the domain, vertical asymptotes, and zeros of the following function:

$$f(x) = \frac{x + 6}{x - 1}$$

Problem 2. (10pt) Showing all your work, find the domain, vertical asymptotes, and zeros of the following function:

$$g(x) = \frac{x^2 - 2x - 8}{x + 3}$$

Problem 3. (10pt) Showing all your work, find the domain, vertical asymptotes, and zeros of the following function:

$$h(x) = \frac{x - 5}{x^2 + 8x + 12}$$

Problem 4. (10pt) Showing all your work, find the domain, vertical asymptotes, and zeros of the following function:

$$j(x) = \frac{x^2 - x - 12}{x^2 - 3x - 18}$$