Name: _____

MATH 101
Fall 2021
HW 13: Due 11/09

"Science and technology revolutionize our lives, but memory, tradition, and myth frame our response."

–Arthur M. Schlesinger

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

$$f(x) = \frac{x-5}{x+3}$$

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

$$g(x) = \frac{x^2 + 5x + 6}{x - 1}$$

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

$$h(x) = \frac{x + 10}{x^2 - 2x - 8}$$

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

$$j(x) = \frac{x^2 + 3x - 4}{x^2 - 4x + 3}$$