

Homework 6

October 25, 2024

1. Sketching the graph of

$$f(x) = \frac{x^2}{x^2 - 4}$$

Please write down the domain. If there are asymptotes, critical points, or inflection points, please label them.

2. Use differentials to find the approximate value of $\sqrt[4]{621}$ to three decimal places.

3. Use Newton's method to perform three iterations to find the approximate value of the cube root of 28 to four decimal places