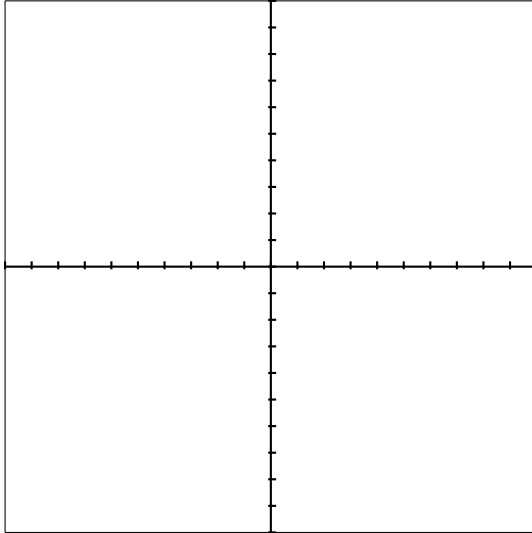


Problem 1. Fill in the requested information and sketch the graph.



Problem 1: $f(x) = 5 - 4x - x^2$

Leading Coefficient:

Constant Coefficient:

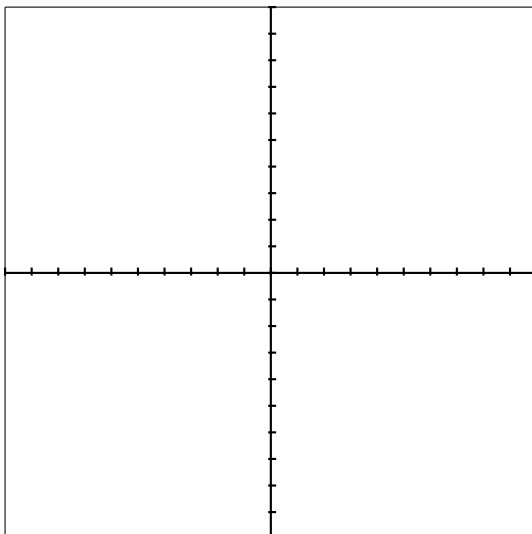
Roots:

y -intercept:

x -intercepts:

Vertex:

Problem 2. Fill in the requested information and sketch the graph.



Problem 2: $f(x) = \frac{x^2-1}{x-2}$

Degree:

Roots:

Poles:

y -intercept:

x -intercepts:

Vertical Asymptotes:

Slant Asymptote:

Problem 3 (Extra Credit). Let $f(x) = x^3 - 1$.

(a) Find $f(x) \div (x - 1)$.

(b) Find all the roots of $f(x)$.