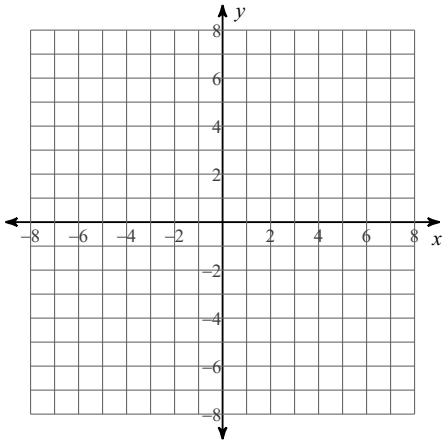
Algebra 2 Name_____ ID: 1

Graphing Rational Functions

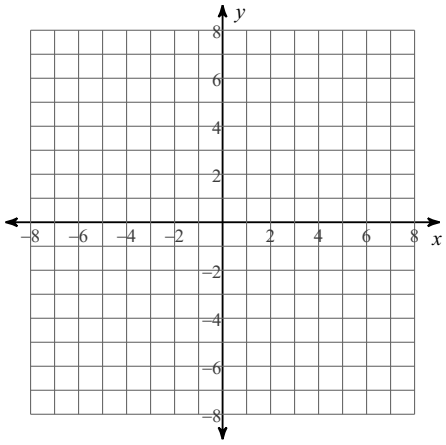
Date_____ Period____

Identify the holes, vertical asymptotes, horizontal asymptote, and domain of each. Then sketch the graph.

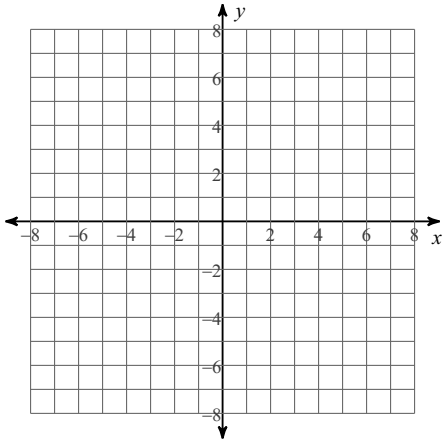
1) $f(x) = \dfrac{x^2 - 5x + 6}{-2x^2 - 2x + 24}$



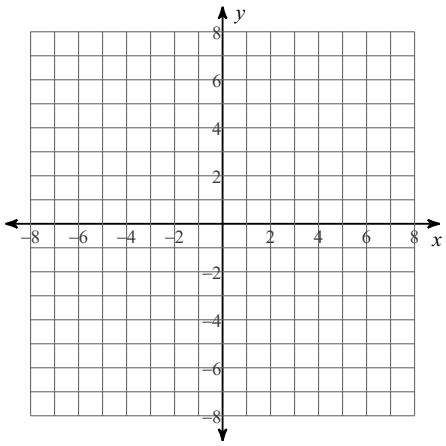
2) $f(x) = \dfrac{x^3 + 3x^2 + 2x}{-x^3 + x^2 + 2x}$



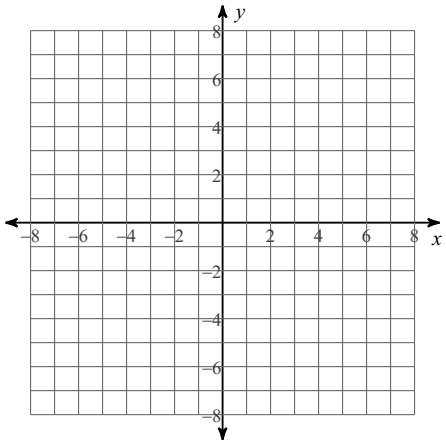
3) $f(x) = \dfrac{x^2 - x - 2}{-x^2 - x + 6}$



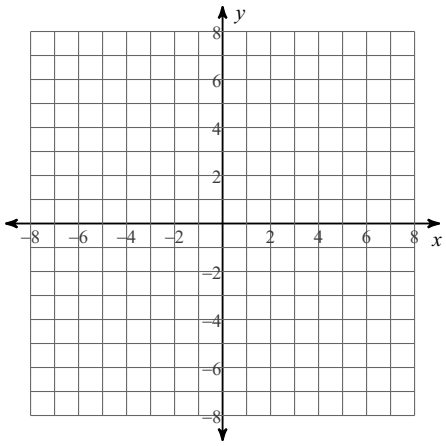
4) $f(x) = \dfrac{x^3 - x^2 - 2x}{-4x^3 + 20x^2 - 24x}$



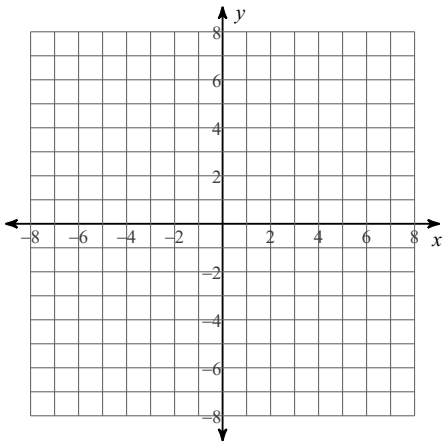
5) $f(x) = \dfrac{1}{3x}$



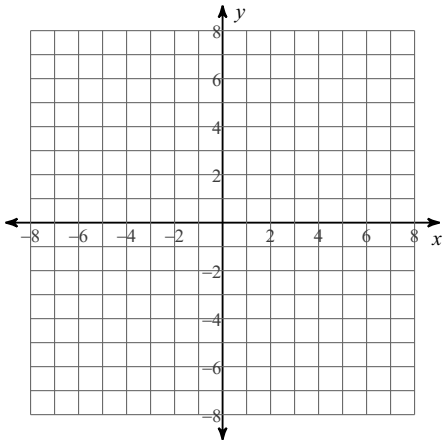
6) $f(x) = \dfrac{-x^2 - 3x + 4}{x^2 - x - 2}$



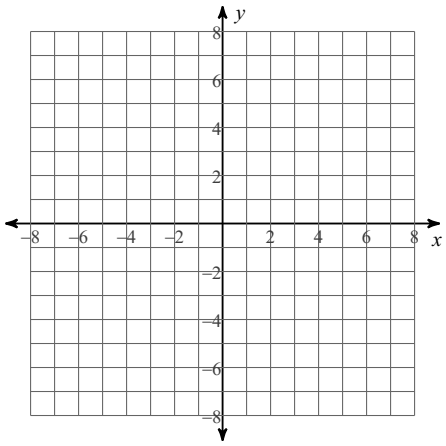
7) $f(x) = \dfrac{-x^3 - 2x^2}{x^3 - 4x}$



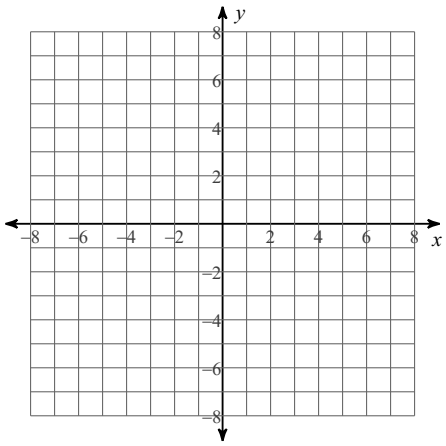
8) $f(x) = \dfrac{x^2 + x - 2}{4x^2 + 8x - 12}$



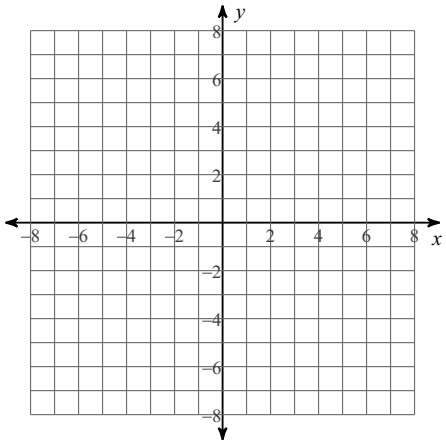
9) $f(x) = -\dfrac{4}{x^2 - 4}$



10) $f(x) = \dfrac{2}{x-4}$



11) $f(x) = \dfrac{x^2 - x}{3x^2 + 6x - 9}$



12) $f(x) = \dfrac{1}{3x^2 + 9x}$