

Find all Vertical Asymptotes and Holes. For the hole also find the y-coordinate.

$$2) f(x) = \frac{x^2 + 7x + 12}{-2x^2 - 2x + 12}$$

$$4) f(x) = \frac{-3x + 12}{x^2 - 3x - 4}$$

$$5) f(x) = \frac{-2x^2 + 4x + 16}{x^2 - 5x + 4}$$

$$8) f(x) = \frac{x^2 + 5x + 4}{x^2 - 1}$$

$$2) f(x) = \frac{x^2 + 2x - 8}{-x^2 + 6x - 8}$$

$$3) f(x) = \frac{x^2 - 7x + 12}{-2x^2 - 2x + 24}$$

$$4) f(x) = \frac{3x^2 - 3x - 18}{x^2 - 4}$$

$$5) f(x) = \frac{x^2 + 6x + 8}{x^2 + 3x - 4}$$

$$6) f(x) = \frac{2x + 6}{x^2 + 5x + 6}$$

$$8) f(x) = \frac{-3x + 12}{x - 2}$$

$$10) f(x) = \frac{x^3 + x^2 - 12x}{x^3 - x^2 - 6x}$$