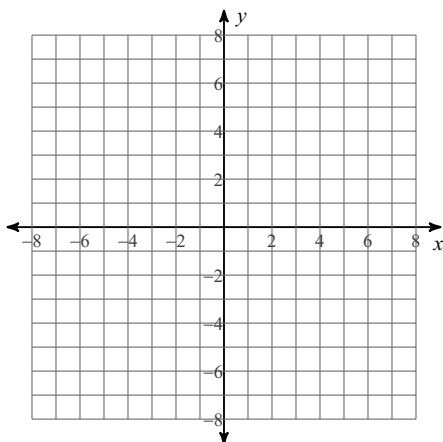


Practice Assessment: Rational Functions

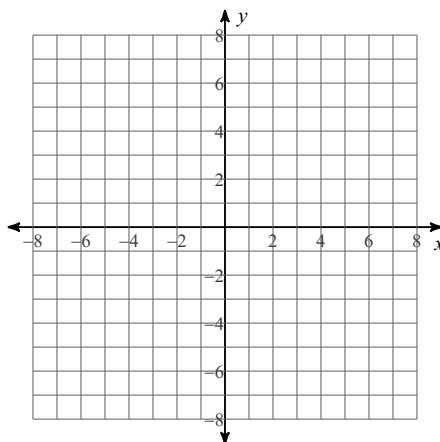
Date _____ Period _____

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

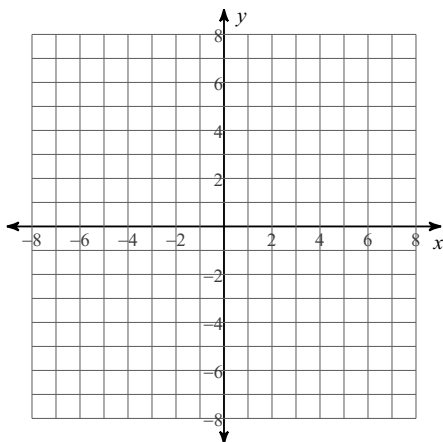
$$1) f(x) = \frac{x^2 + x}{2x^2 + 2x - 12}$$



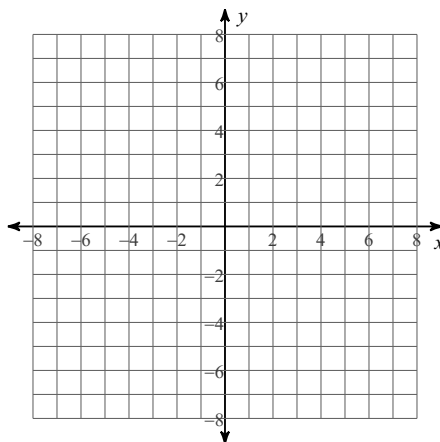
$$2) f(x) = \frac{1}{-4x + 4}$$



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



$$4) f(x) = \frac{1}{-x^2 - x + 6}$$



Solve each equation. Remember to check for extraneous solutions.

$$5) \frac{x+2}{4x^2} = \frac{1}{x} + \frac{x+4}{2x^2}$$

$$6) \frac{k+3}{6k^2} = \frac{2}{3k} - \frac{1}{3k^2}$$

$$7) \frac{1}{4k} + \frac{k^2 + 7k + 6}{4k^2} = \frac{9k^2 + 18k - 27}{4k^2}$$

$$8) \frac{1}{6} = \frac{p^2 - 6p + 9}{6p^2} + \frac{1}{p^2}$$