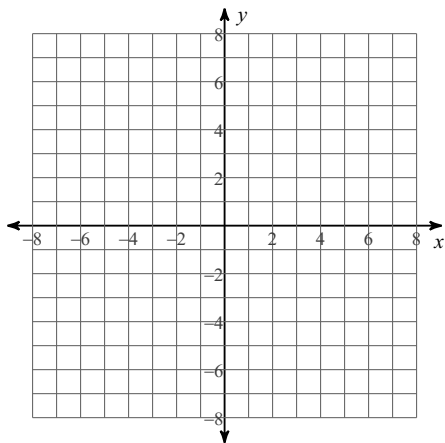


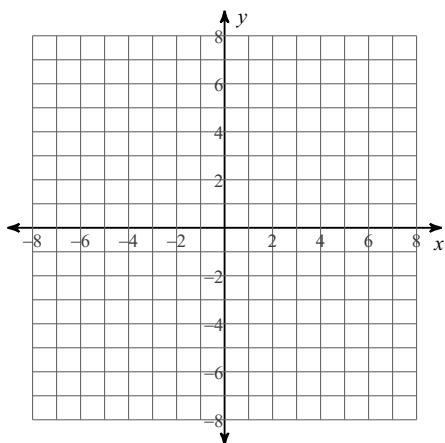
Unit 4 Test 2 Study Guide

Identify the holes, vertical asymptotes, x-intercepts, horizontal asymptote, then sketch the graph. For each even problem, state the positive and negative intervals, the domain and the end behavior.

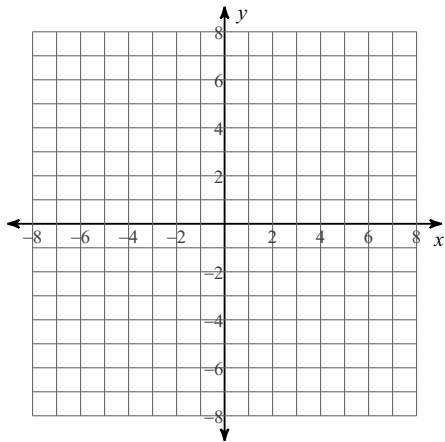
1) $f(x) = \frac{1}{-3x - 9}$



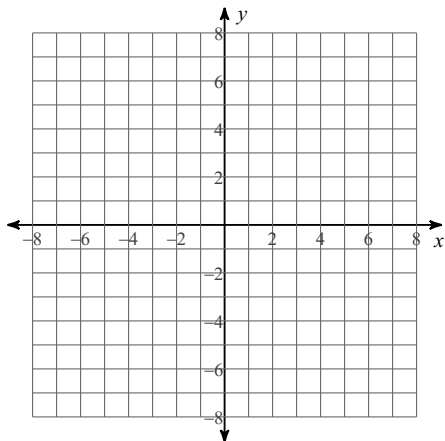
2) $f(x) = \frac{3}{x^2 - x - 6}$



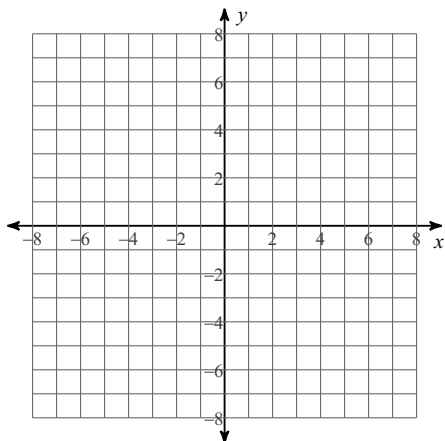
$$3) f(x) = \frac{x^2 - 16}{-2x}$$



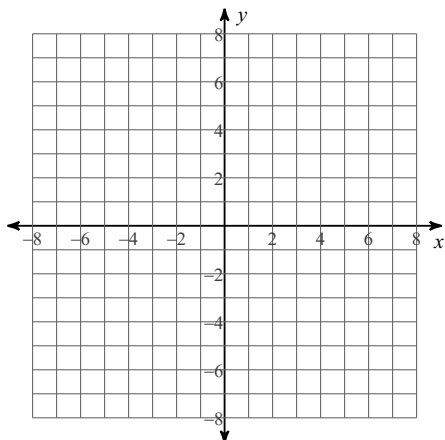
$$4) f(x) = \frac{-3x^2 - 6x}{x^2 + 2x - 3}$$



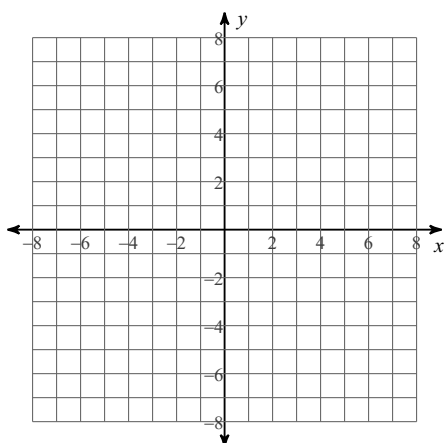
$$5) f(x) = \frac{3}{x^2 + x - 2}$$



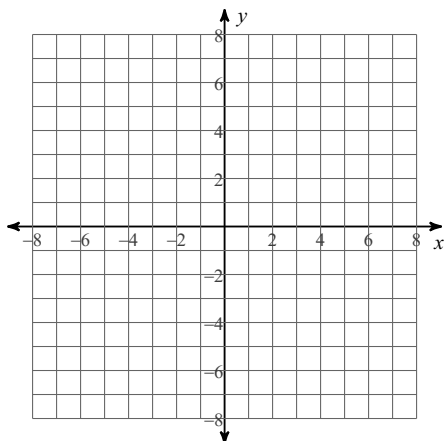
$$6) f(x) = \frac{1}{-x - 4}$$



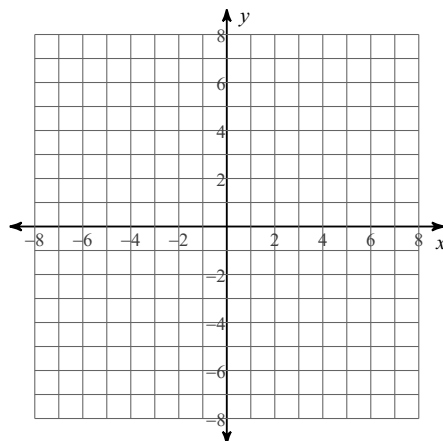
$$7) f(x) = \frac{-2x^2 + 8x}{x^2 - 4}$$



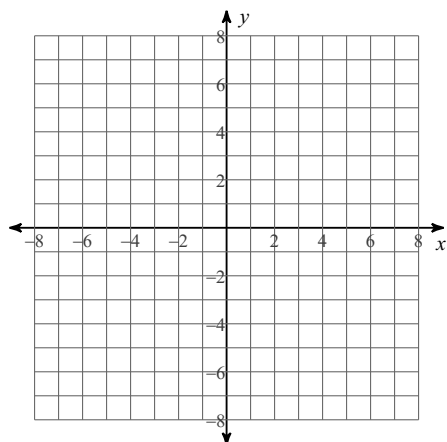
$$8) f(x) = \frac{x + 4}{x^2 + x - 12}$$



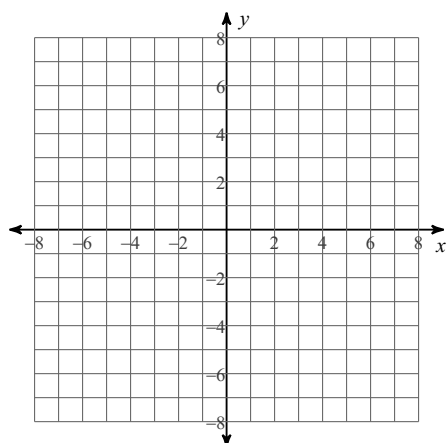
$$9) f(x) = \frac{x^2 - x - 12}{-4x}$$



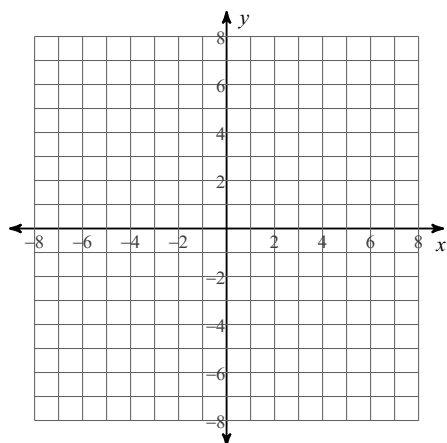
$$10) f(x) = \frac{-x + 3}{x}$$



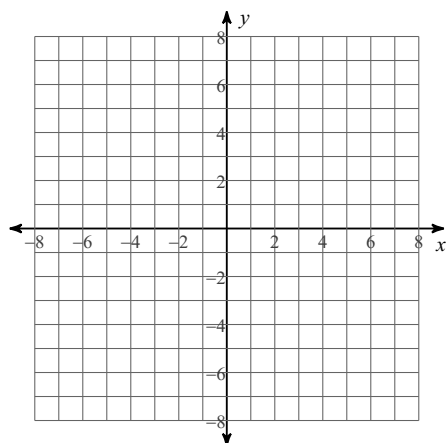
$$11) f(x) = \frac{4}{x^2 - x - 2}$$



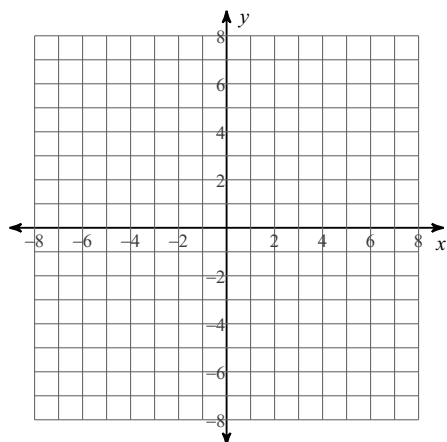
$$12) f(x) = \frac{1}{-4x + 16}$$



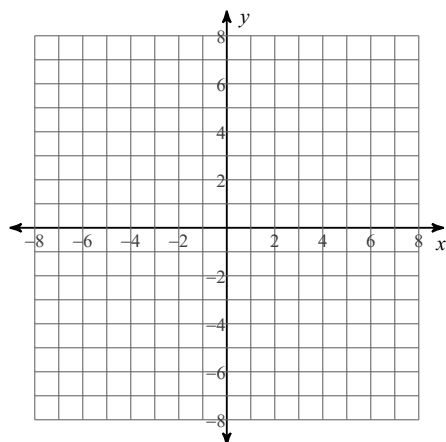
$$13) f(x) = \frac{x^2 - 5x + 4}{-4x + 12}$$



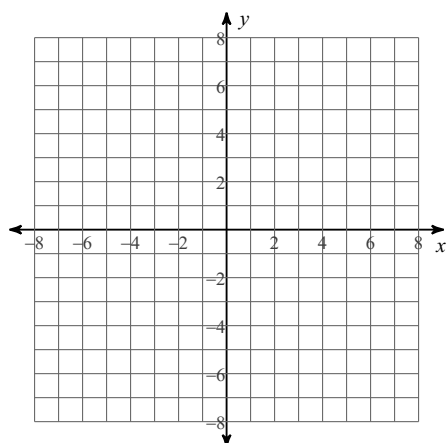
$$14) f(x) = \frac{2x}{x-2}$$



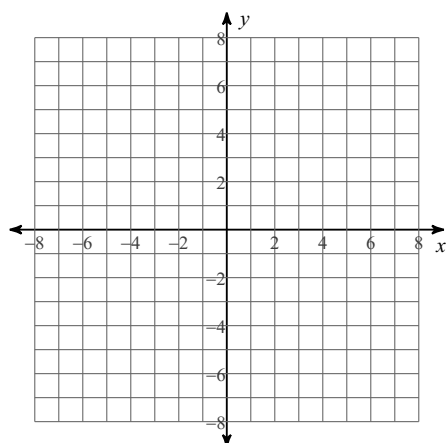
$$15) f(x) = \frac{x^2 - 3x + 2}{-4x + 16}$$



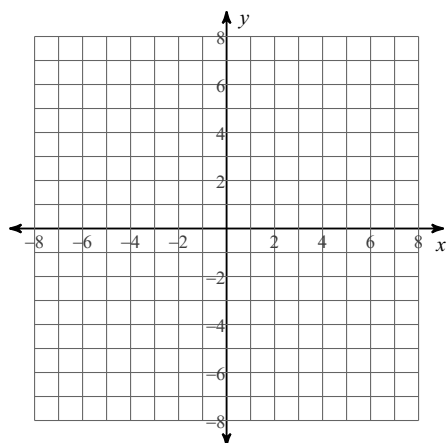
$$16) f(x) = \frac{-2x - 4}{x^2 - 4}$$



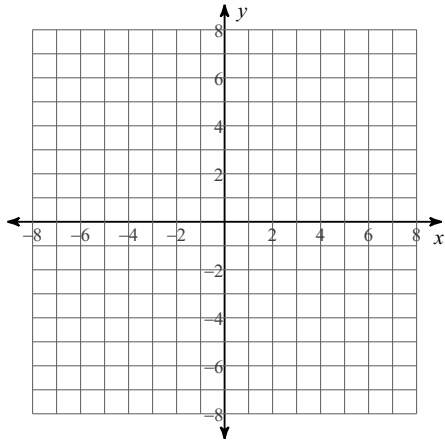
$$17) f(x) = \frac{x + 4}{x}$$



$$18) f(x) = \frac{3}{x^2 - 9}$$



$$19) f(x) = \frac{x^2 - x - 2}{-3x - 6}$$



$$20) f(x) = \frac{x^2 - 4x + 3}{4x - 8}$$

