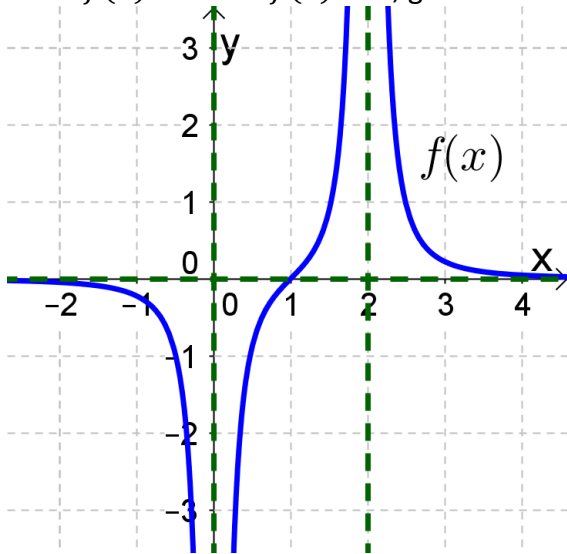


## Polynomial and Rational Inequalities

(covers Sullivan 4.4)

**Ex 1.**Solve  $f(x) \geq 0$  and  $f(x) < 0$ , given the following graph of  $f$ .

If we are given a formula instead of a graph, we can solve inequalities algebraically.

**Ex 2.**Solve  $\frac{2x^2+7x-4}{x^2+x-2} < 0$ .

**Ex 3.**Solve  $x^4 \geq 25x^2$ .**Ex 4.**Solve  $\frac{x-1}{x+2} \geq -2$ .