

Name

Poly-Rat Functions HW #5

For each of the rational functions find: a. domain b. holes c. vertical asymptotes d. horizontal asymptotes e. oblique asymptotes f. y-intercept g. x-intercepts h. draw a sketch showing features a-g

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

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

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

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

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

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

7.  $f(x) = \frac{x^2 - x - 2}{x - 1}$