

Written assignments  
to hand in.

Discussion Problems  
From the department syllabus  
These are not to hand in.

Section 3.5

24, 32

due Friday 4/17

Sections 9.1, 9.2

WebAssign

Section 3.6

Due Monday 11/20 9pm

Section 3.6

52, 54

due Monday 11/20

3.6

(53)

stretch the graph  $y = \frac{(x-1)(x+2)}{(x+1)(x-3)}$  clearly label

all horizontal and vertical asymptotes, x- and y-intercepts.

horizontal

$$y = \frac{x^2 + x - 2}{x^2 - 2x - 3} = \frac{\text{degree 2}}{\text{degree 2}}$$

horizontal asymptote  
at  $y = \frac{1}{1} = 1$

vertical asymptotes

$$\begin{aligned} \text{denominator} &= 0 \\ (x+1)(x-3) &= 0 \\ x &= -1, 3 \end{aligned}$$

x-intercepts

$$\begin{aligned} \text{numerator} &= 0 \\ (x-1)(x+2) &= 0 \\ x &= -2, 1 \end{aligned}$$

y-intercept

let  $x=0$

$$y = \frac{(-1)(2)}{(1)(-3)} = \frac{2}{3}$$

Positive/Negative



