

## New Assignment 8: Asymptotes

November 12, 2013

**1)** Describe the horizontal asymptotes of the following rational functions; be sure to show complete work. (a)  $f(x) = \frac{3x-1}{2-5x}$  (b)  $h(x) = \frac{x+7}{x^2-6x+8}$  (c)  $c(x) = \frac{7x^2-3x+2x^3+6}{4x-x^2-2-5x^3}$ .

**2)** Find all vertical asymptotes, horizontal asymptotes,  $x$ -intercepts and  $y$ -intercepts for a)  $f(x) = \frac{3x-1}{2-5x}$  b)  $g(x) = \frac{2x}{x+7}$  (c)  $h(x) = \frac{x+7}{x^2-6x+8}$ .