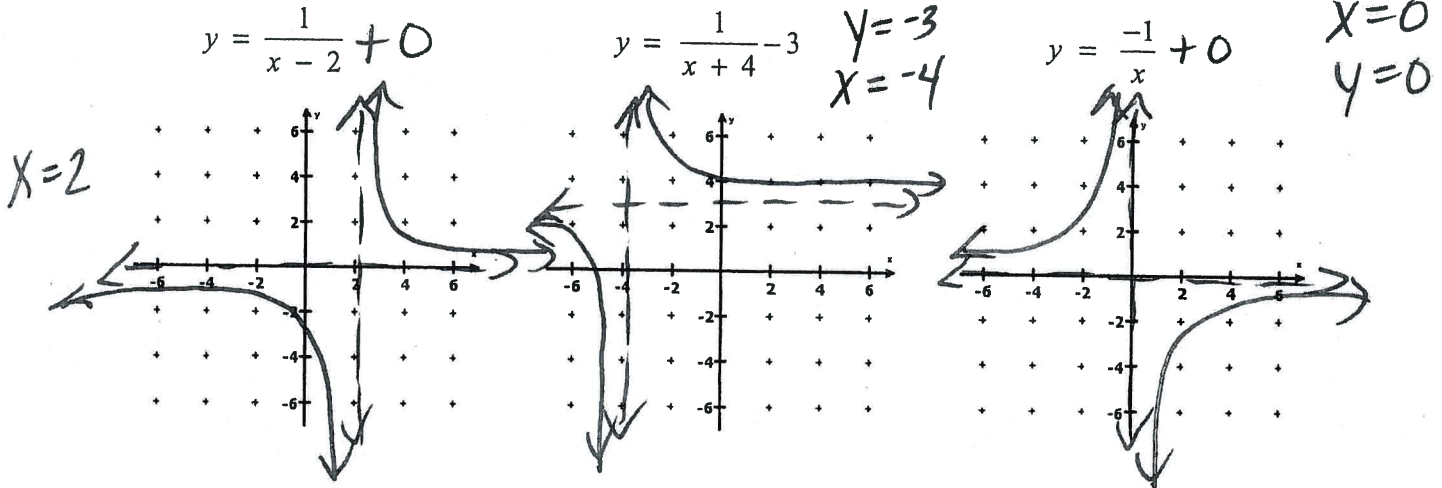


HOMEWORK: GRAPH RATIONAL FUNCTIONS 1 DAY 23

NAME: _____

DUE DATE: _____

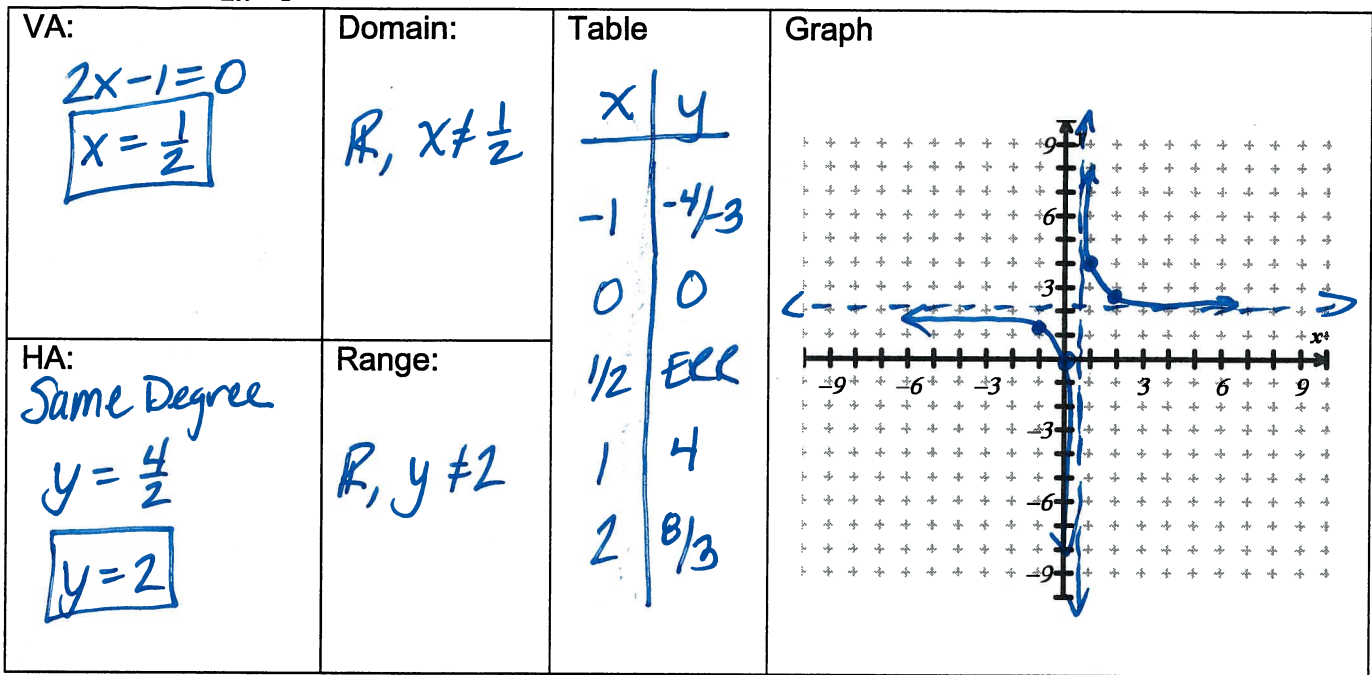
1. Sketch the following graphs without a calculator.



Find the vertical and horizontal asymptotes of the graph of the function.

<p>2. $f(x) = \frac{2}{x-10} + 1$</p> <p>VA: $x = -10$</p> <p>HA: $y = 1$</p>	<p>3. $f(x) = \frac{4}{x+2} + 9$</p> <p>VA: $x = -2$</p> <p>HA: $y = 9$</p>	<p>4. $f(x) = \frac{2x}{x+5}$</p> <p>VA: $x = -5$</p> <p>HA: $y = \frac{2}{1}$ (same degree)</p>
<p>5. $f(x) = \frac{2x-1}{x+5}$</p> <p>VA: $x = -5$</p> <p>HA: $y = \frac{2}{1}$ (Same degree)</p>	<p>6. $f(x) = \frac{3x}{x^2-1}$</p> <p>VA: $x^2 - 1 = 0$ $(x-1)(x+1) = 0$ $x = 1, -1$</p> <p>HA: $y = 0$</p>	<p>7. $f(x) = \frac{4x+3}{9x^2-1}$</p> <p>VA: $9x^2 - 1 = 0$ $(3x-1)(3x+1) = 0$ $3x-1=0$ $3x+1=0$ $x = 1/3$ $x = -1/3$</p> <p>HA: $y = 0$</p>

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



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

