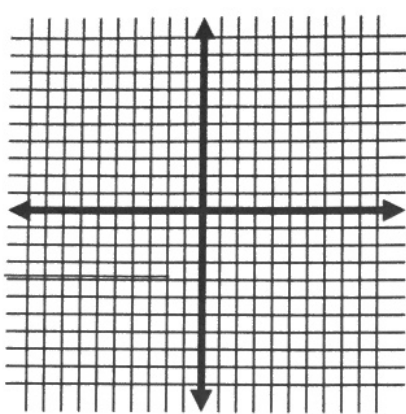


9.  $f(x) = \frac{6x+12}{2x-3}$

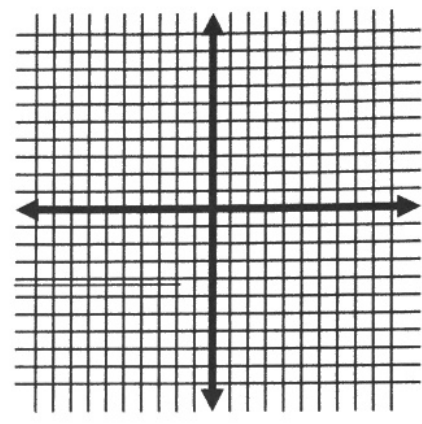


VA: \_\_\_\_\_

HA: \_\_\_\_\_

Domain: \_\_\_\_\_

10.  $f(x) = \frac{8x+3}{2x-6}$



VA: \_\_\_\_\_

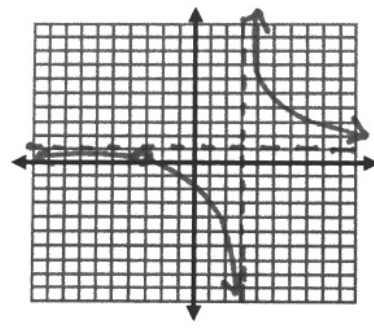
HA: \_\_\_\_\_

Domain: \_\_\_\_\_

### 5.9 Graphing Rational Functions Day 2

Graph the function and label the following information.

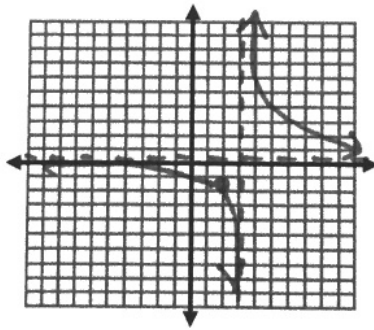
1.  $y = \frac{x^2+5x+6}{x^2-9}$   
 $y = \frac{(x+2)(x+3)}{(x-3)(x+3)}$



|                        |                |
|------------------------|----------------|
| Zeros:                 | _____          |
| Vertical Asymptotes:   | $x=3$          |
| Horizontal Asymptotes: | $y=1$          |
| Holes:                 | $x=-3$         |
| Y-Intercept(s):        | _____          |
| Domain:                | $x \neq 3, -3$ |
| Range:                 | _____          |

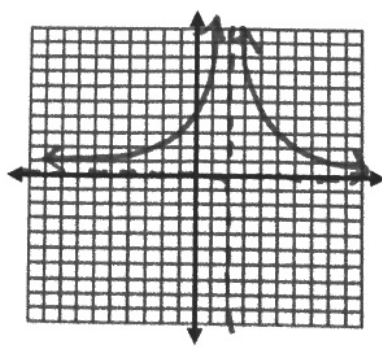
2.  $y = \frac{x^2-4}{3x^2-15x+18}$   
 $y = \frac{(x+2)(x-2)}{3(x^2-5x+6)}$

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



|                        |                   |
|------------------------|-------------------|
| Zeros:                 | _____             |
| Vertical Asymptotes:   | $x=3$             |
| Horizontal Asymptotes: | $y = \frac{1}{3}$ |
| Holes:                 | $x=2$             |
| Y-Intercept(s):        | _____             |
| Domain:                | $x \neq 2, 3$     |
| Range:                 | _____             |

7.  $y = \frac{5}{(x-2)^2}$



|                        |            |
|------------------------|------------|
| Zeros:                 | _____      |
| Vertical Asymptotes:   | $x=2$      |
| Horizontal Asymptotes: | $y=0$      |
| Holes:                 | none       |
| Y-Intercept(s):        | _____      |
| Domain:                | $x \neq 2$ |
| range:                 | _____      |