

# C12 - 9.5 - Holes Notes

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

~~$$y = \frac{(x-1)(x+2)}{x+2}$$~~

$$y = x - 1$$

Hole:  $x + 2 = 0$   
 $x = -2$

Set what you've crossed off equal to zero and solve.

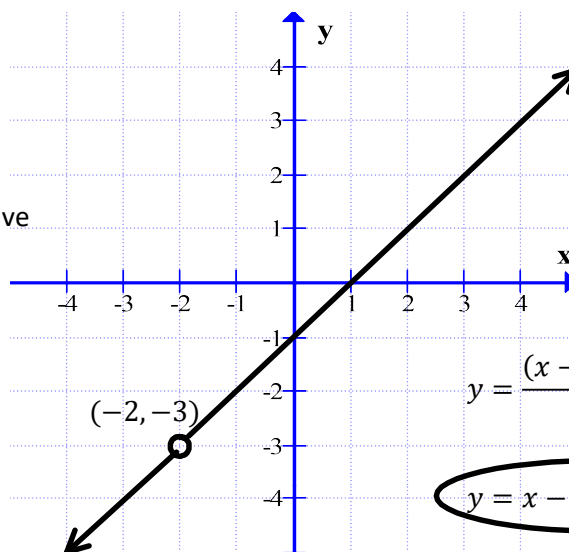
$$y = x - 1$$

$$y = -2 - 1$$

$$y = -3$$

$$(-2, -3)$$

| x  | y  |
|----|----|
| -2 | -3 |



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

$$y = x - 1 \quad x \neq -2$$

$$x \neq -2$$

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

~~$$y = \frac{x+3}{(x-1)(x+3)}$$~~

$$y = \frac{1}{x-1}$$

Hole:  $x + 3 = 0$   
 $x = -3$

VA:  $x - 1 = 0$   
 $x = 1$

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

$$y = \frac{1}{x-1} \quad x \neq -3$$

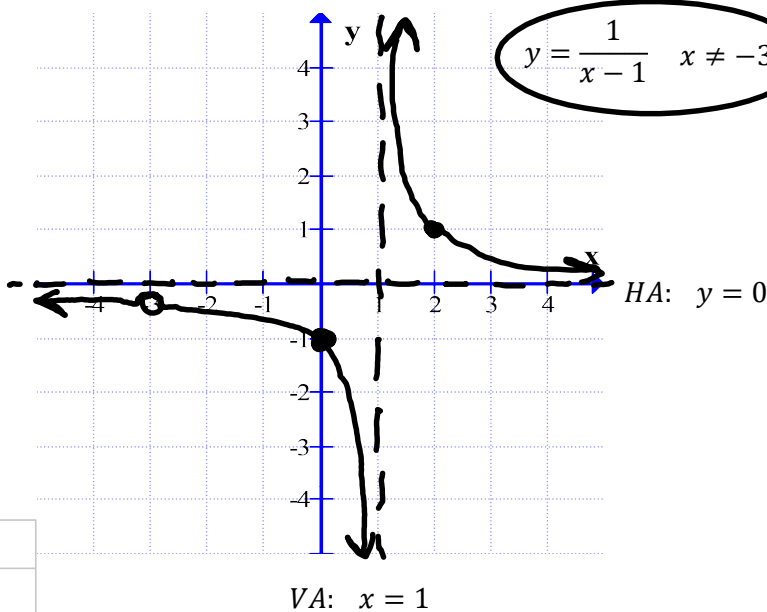
$$y = \frac{1}{x-1}$$

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

$$y = \frac{1}{-4}$$

$$\left(-3, -\frac{1}{4}\right)$$

| x  | y              |
|----|----------------|
| -3 | $-\frac{1}{4}$ |



VA:  $x = 1$

HA:  $y = 0$