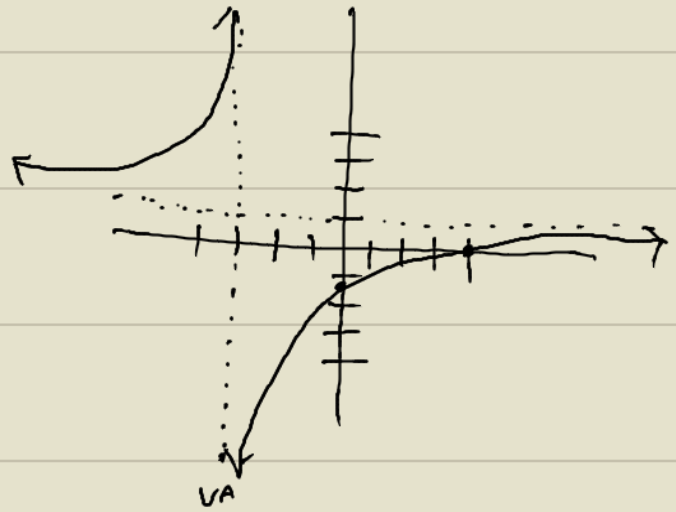
5. $y = \frac{x-4}{x+3}$



DOMAIN: $x+3=0$

$x \neq -3$

$(-\infty, -3) \cup (-3, \infty)$

X-INT $\quad 0 = \frac{x-4}{x+3}$

$0 = x-4$

$x = 4$

Y-INT $\quad y = \frac{0-4}{0+3}$

$y = \frac{-4}{3}$

VA

$x+3=0$

$x=-3$

SA

NONE

HA

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

$y=1$

$y = \frac{x-4}{x+3}$ $\quad P \quad P'=1$

$\quad\quad\;\; Q \quad Q'=1$

$$\frac{P'Q - PQ'}{Q^2}$$

$$y' = \frac{1(x+3) - (x-4)(1)}{(x+3)^2}$$

$$= \frac{x+3-x+4}{(x+3)^2}$$

$$= \frac{7}{(x+3)^2}$$

$(x+3)^2 = 0$

$x+3=0$

$x=-3$

$-\infty$	$x=-4$	$x=0$	∞
	+	+	
	/	/	

INC $(-\infty, -3)$

INC $(-3, \infty)$

NO MIN/MAX