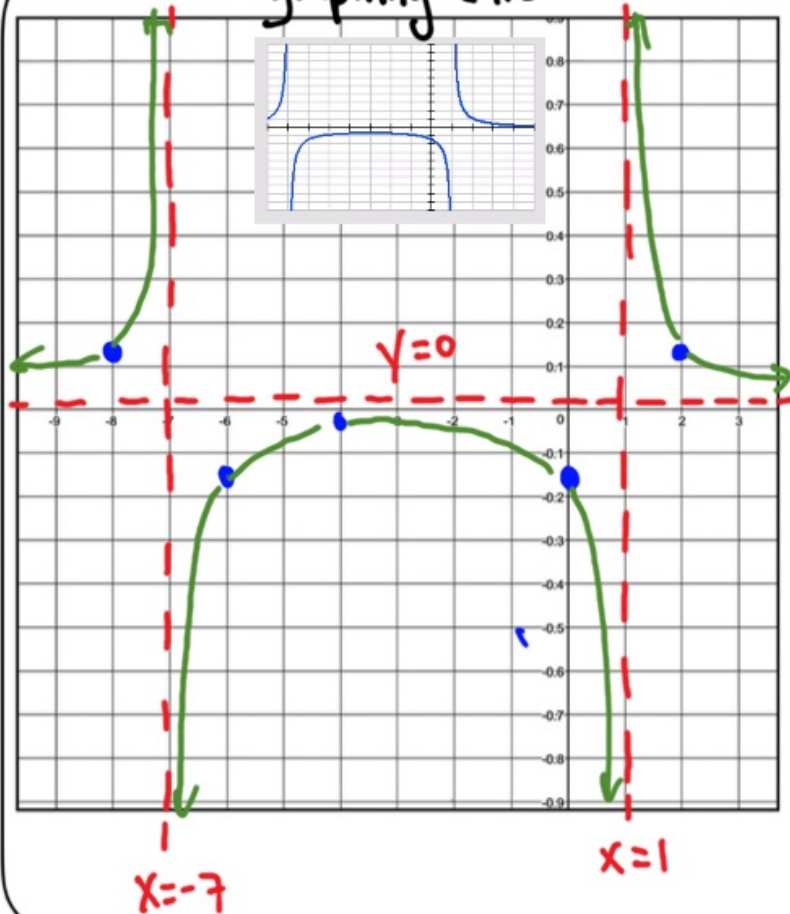


Graphical Functions Part 2 - Non-Transformational

graphing calc



$$f(x) = \frac{1}{x^2 + 6x - 7}$$

x-intercepts:	None
Vertical Asymptotes:	$x = -7$ $x = 1$
Horizontal Asymptotes:	$y = 0$
Holes:	None
y-Intercept(s):	$(0, -1/7)$
Domain:	$(-\infty, -7) \cup (-7, 1) \cup (1, \infty)$
Range:	

x-int

$$0 = \frac{1}{x^2 + 6x + 7}$$

$0 = 1$ No solution

So no x-int

y-int

$$f(0) = -1/7$$

vert asymptote

$$x^2 + 6x - 7 = 0$$

$$(x + 7)(x - 1) = 0$$

$$x = -7 \quad x = 1$$

strategic points

$$f(-8) = 0.11$$

$$f(2) = 0.11$$

$$f(-4) = -0.07$$

$$f(-6) = -0.14$$

graphing calc.

$$f(x) = \frac{-2}{3x^2 - 4x - 15}$$

Intercepts:	None
Vertical Asymptotes:	$x = -5/3$ $x = 3$
Horizontal Asymptote:	$y = 0$
Holes:	None
y-Intercept(s):	$(0, 2/15)$
Domain:	$(-\infty, -5/3) \cup (-5/3, 3) \cup (3, \infty)$
Range:	$(-\infty, 0) \cup (0, \infty)$

x-int
 $0 = \frac{-2}{3x^2 - 4x - 15}$
 $0 = -2$ No sol
 So no x-int

y-int
 $f(0) = 2/15$

vert asymptote
 $3x^2 - 4x - 15 = 0$
 $(3x + 5)(x - 3) = 0$
 $x = -5/3$ $x = 3$

Strategic Points
 $f(-4) = -0.041$ $f(5) = -0.05$
 $f(2) = 0.19$

