

- Sketch the graph of $y = \frac{x^2 - 2x - 3}{2x + 6}$.

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

Domain: $x \neq -3$

V.A. $x = -3$

H.A. None

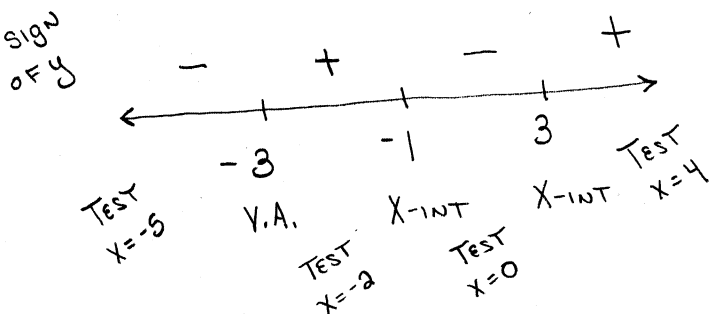
Intercepts: $(3, 0)$, $(-1, 0)$, $(0, -\frac{1}{2})$

SLANT Asymp...

$$\begin{array}{r} \frac{1}{2}x - \frac{5}{2} \\ 2x + 6 \overline{) x^2 - 2x - 3} \\ \underline{-(x^2 + 3x)} \\ -5x - 3 \\ \underline{-(-5x - 15)} \\ +12 \end{array}$$

$$y = \frac{1}{2}x - \frac{5}{2}$$

Sign chart



x	y
3	0
-1	0
0	$-\frac{1}{2}$

And use
graphing
calculator
...

