Example: Oblique Non-Linear Asymptote

$$\frac{-3x^4+28x^2-33}{(-x-3)(-x-1)}$$

$$+(-3x^2)\quad+(12x)\quad+(-11)$$

$$(-x-3)(-x-1)\quad(-3)x^4+(28)x^2+(-33)$$

$$(-3x^4)+(-12x^3)+(-9x^2)$$

$$+(12)x^3+(37)x^2+(-33)$$

$$+(12x^3)+(48x^2)+(36x)$$

$$+(-11)x^2+(-36)x+(-33)$$

$$+(-11x^2)+(-44x)+(-33)$$

$$+(8x)$$