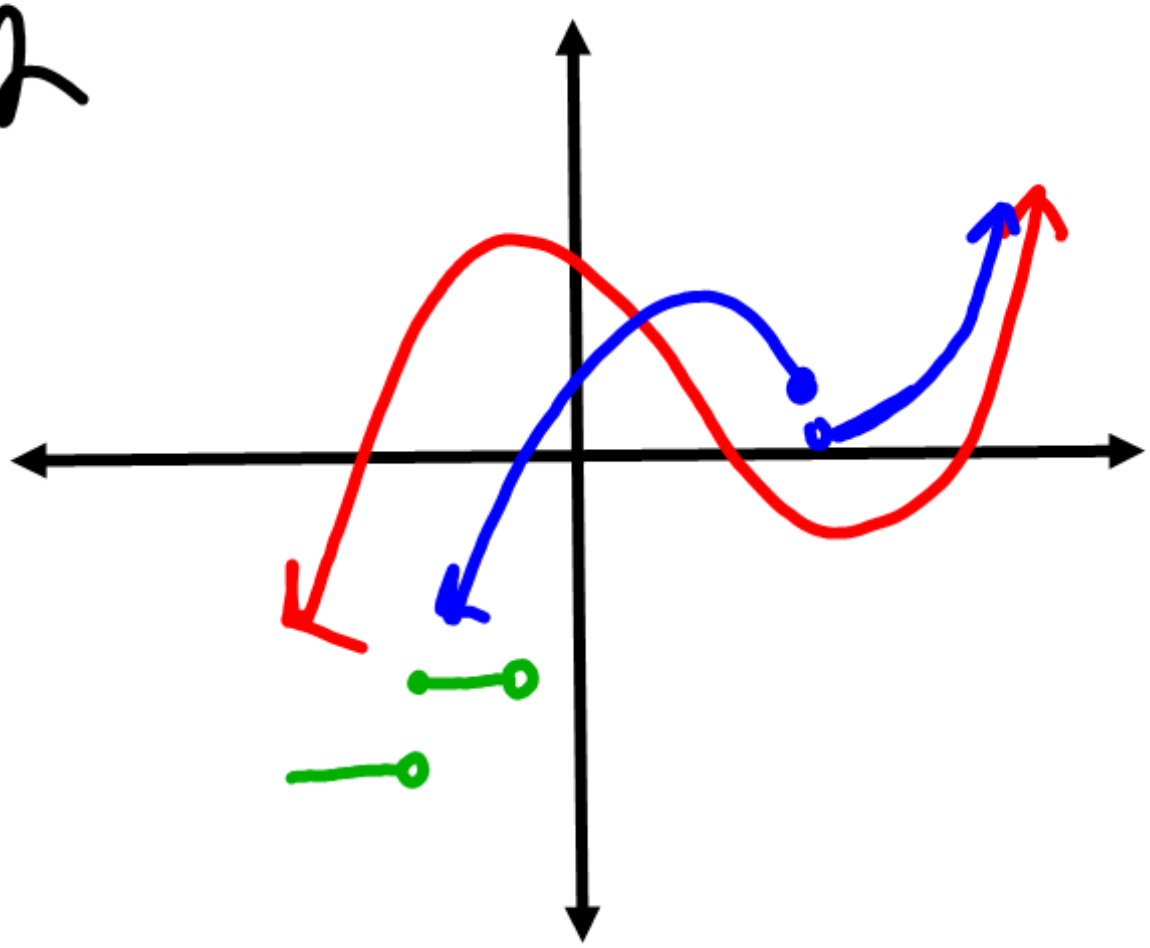
2.2



$x=0 \quad x=0 \quad x=4 \quad x=7$

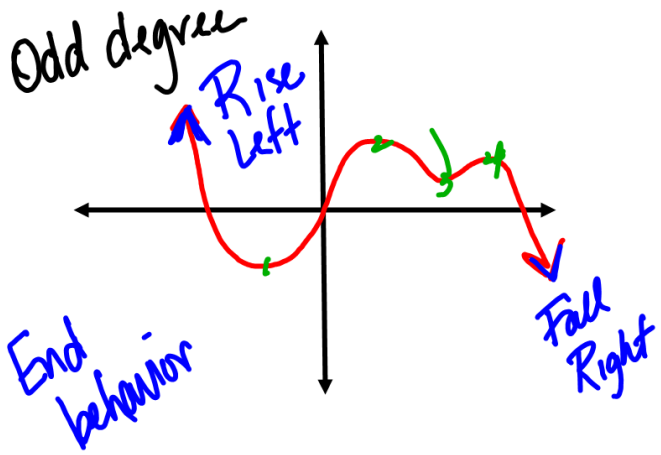
$(x)(x)(x-4)(x-7)=0$

$y=a[x^2(x-4)(x-7)]$

$9=a[\text{Sub } x=1]$

Solve for a

$y=\frac{a}{\quad}[x^4 \text{ ——} ]$




$f(x) = ax^n + \dots - a_1x + a_0$

n odd $a > 0$

fall left
rise right

$y = 1x^3 - 2x^2 - x + 1$

$1 > 0$

n odd $a < 0$ neg

fall right
rise left

$y = -2x^5 - x^2 + 5x + 3$

$y = a_n x^n + \dots + a_1 x + a_0$

n even

$a > 0$

rise left
rise right

$y = 1x^4 - 3x^2 + 2x - 1$

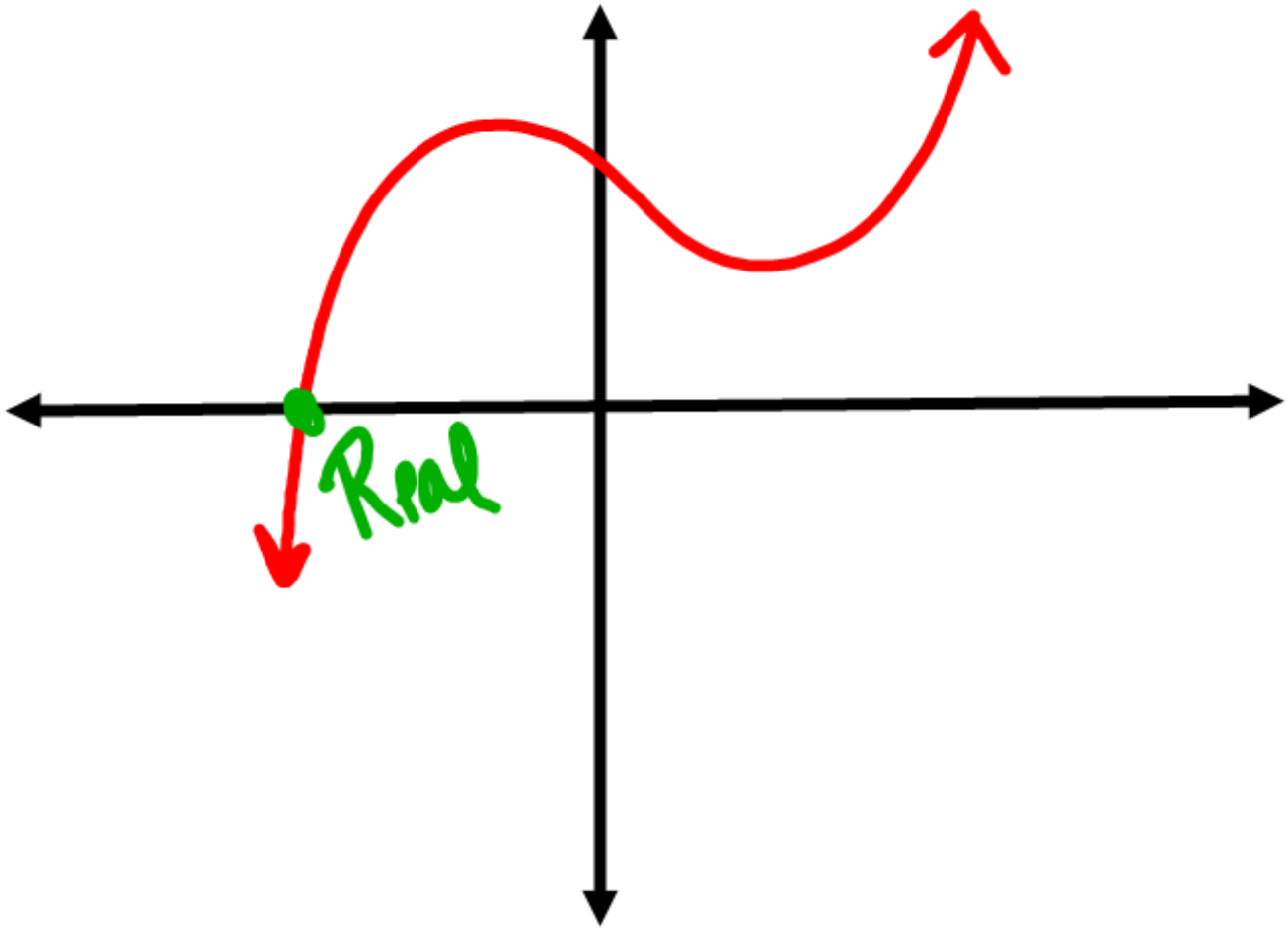
$a > 0$ 4 even
$1 > 0$ Quartic

n even $a < 0$ neg

fall left
fall right

$y = -1x^6 - x^2 - 5x + 4$

$a = -1$ $-1 < 0$


Real