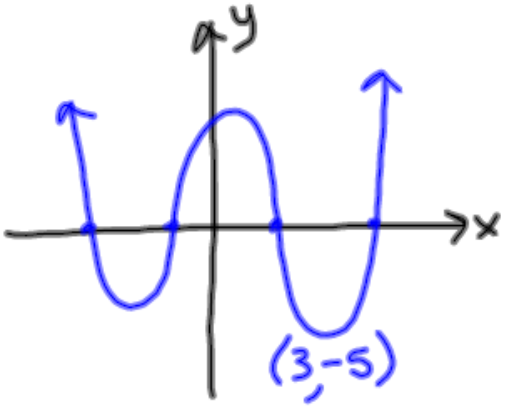
Quartics



positive leading coefficient

$f(x) = 3x^4 \ldots\ldots$

4 x-intercepts

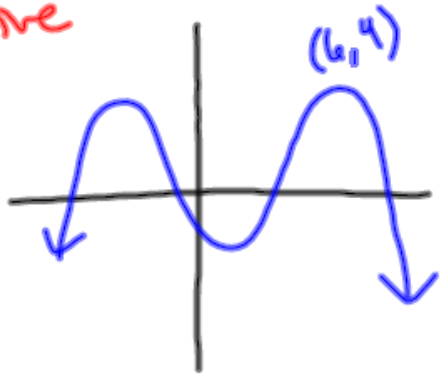
end behavior

extends up in Q1 & Q2

$D: \{x \mid x \in R\}$

$R: \{y \mid y \geq -5, y \in R\}$

Negative

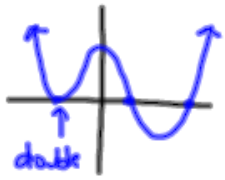


$D: x \mid x \in R$

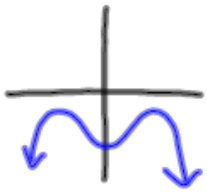
$R: y \mid y \leq 4, y \in R$

EB: ↓ Q3 & 4

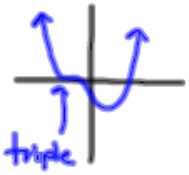
Quartics



positive
4 roots, 3 x-intercepts



negative
no x-intercepts



positive
2 x-intercepts

Quintic Function

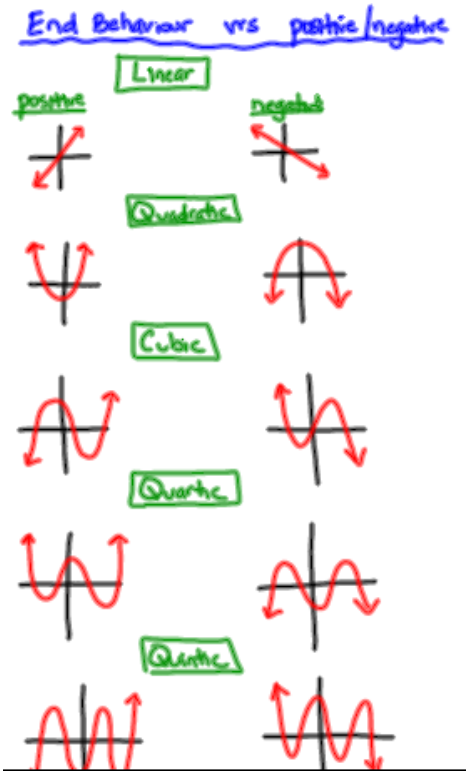
Degree of 5

Possible x-intercepts: 5, 4, 3, 2, 1

5 single x-intercepts

D: $x \in \mathbb{R}$

R: $y \in \mathbb{R}$


End Behaviour vrs positive/negative
Linear
positive
negative
Quadratic
Cubic
Quartic
Quintic