

4 words that mean the same thing and will be used interchangeably.

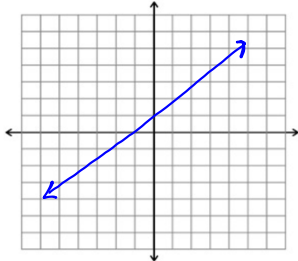
x-intercepts

Zeros

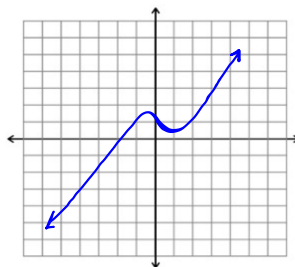
Solutions

Roots

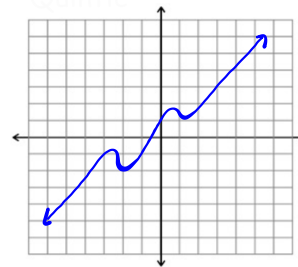
Linear



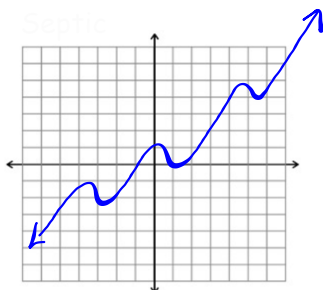
Cubic



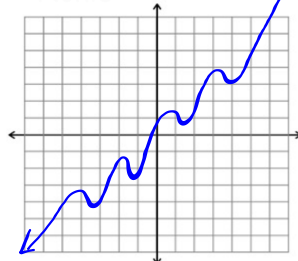
Quintic



Septic



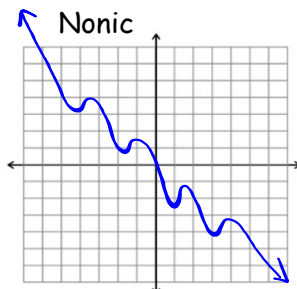
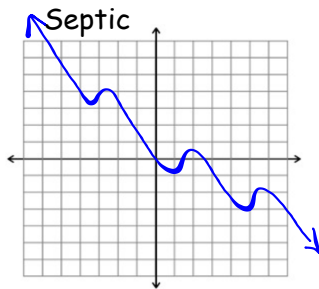
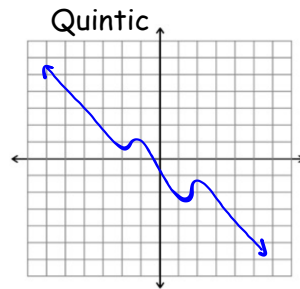
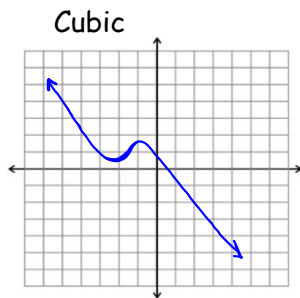
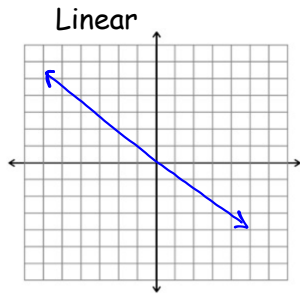
Nonic



Leading coefficient is _____ because

The number of turning points

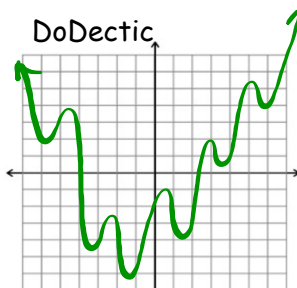
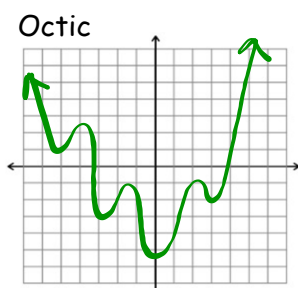
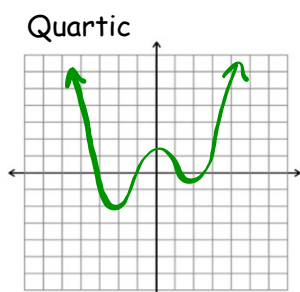
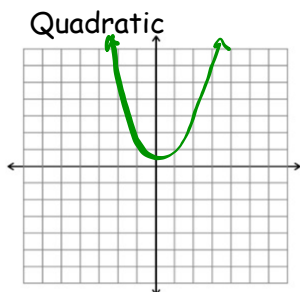
The maximum number of real roots is ___ because the degree is _____



Leading coefficient is _____
because

The number of turning points

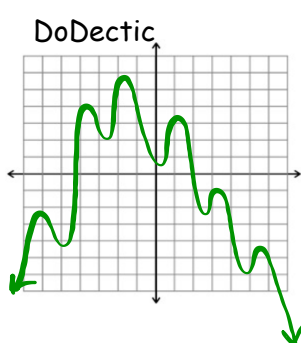
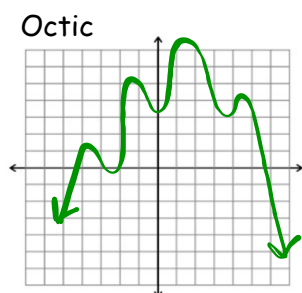
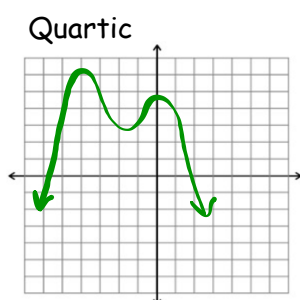
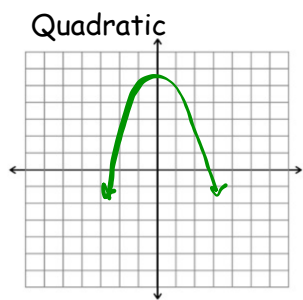
The maximum number of real roots is



Leading coefficient is _____
because

The number of turning points

The maximum number of real roots is



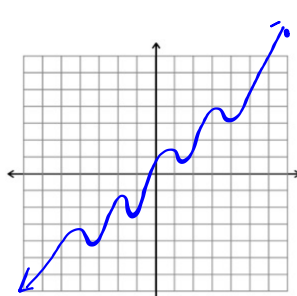
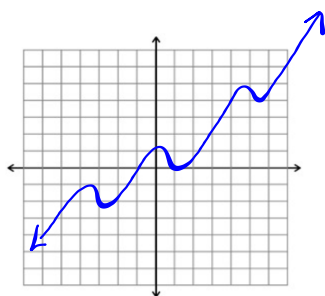
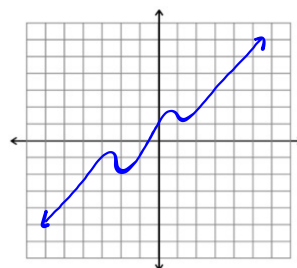
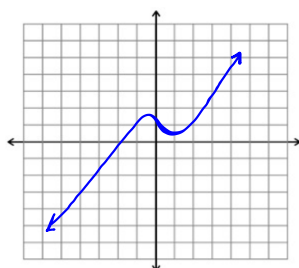
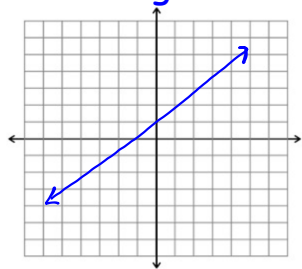
Leading coefficient is _____
because

The number of turning points

The maximum number of real roots is

part 2

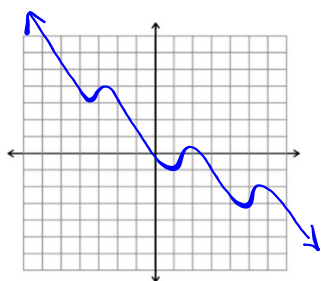
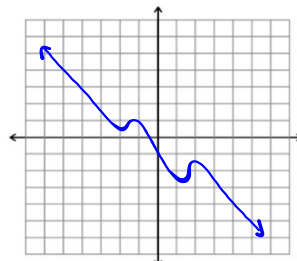
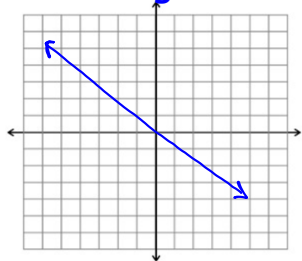
ODD degree POSITIVE coefficient



x goes right the $f(x)$ goes _____

x goes left the $f(x)$ goes _____

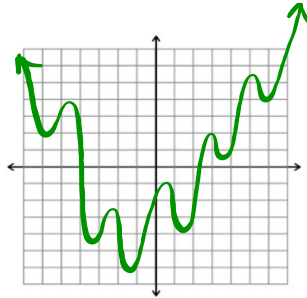
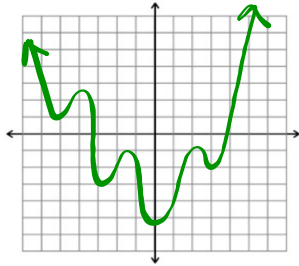
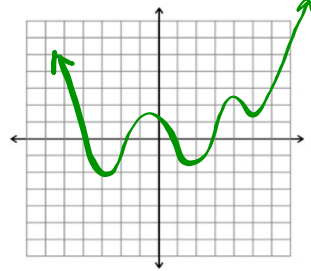
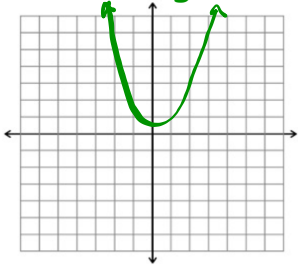
ODD degree NEGATIVE coefficient



x goes right the $f(x)$ goes _____

x goes left the $f(x)$ goes _____

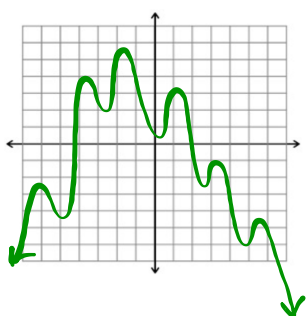
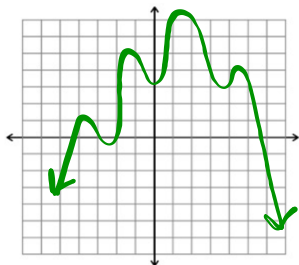
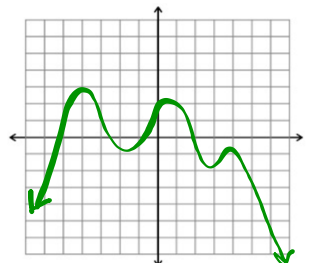
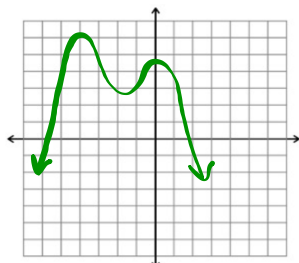
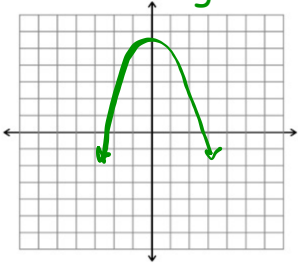
EVEN degree **POSITIVE** coefficient



x goes right the $f(x)$ goes _____

x goes left the $f(x)$ goes _____

EVEN degree **NEGATIVE** coefficient



x goes right the $f(x)$ goes _____

x goes left the $f(x)$ goes _____

EVEN DEGREE		ODD DEGREE	
Positive coefficient	$x \rightarrow \infty$ then $f(x)$	Positive coefficient	$x \rightarrow \infty$ then $f(x)$
	$x \rightarrow -\infty$ then $f(x)$		$x \rightarrow -\infty$ then $f(x)$
Negative coefficient	$x \rightarrow \infty$ then $f(x)$	Negative coefficient	$x \rightarrow \infty$ then $f(x)$
	$x \rightarrow -\infty$ then $f(x)$		$x \rightarrow -\infty$ then $f(x)$