Analyzing the Graph of a Function	
x-Intercepts (Zeros or Roots)	$f(x) = 0$
y-Intercept	$f(0) = y$
Domain	Valid x values
Range	Valid y values
Continuity	No division by 0, no negative square roots or logs
Vertical Asymptotes (VA)	x = division by 0 or undefined
Horizontal Asymptotes (HA)	$\lim_{x\to\infty^-} f(x) \to y$ and $\lim_{x\to\infty^+} f(x) \to y$
Infinite Limits at Infinity	$\lim_{x\to\infty^-} f(x) \to \infty$ and $\lim_{x\to\infty^+} f(x) \to \infty$
Differentiability	Limit from both directions arrives at the same slope
Relative Extrema	Create a table with domains: $f(x), f'(x), f''(x)$
Concavity	If $f''(x) \to +$, then cup up $\cup$ If $f''(x) \to -$, then cup down $\cap$
Points of Inflection	$f''(x) = 0$ (concavity changes)