Kinetics-Orders of Reaction

Rate Order	Zero	First	Second
Rate Law	Rate = k	Rate = k[A]	Rate = k[A]^2
Integrated Rate Law	[A] = -kt + [A]$_0$	Ln [A] = -kt + ln [A]$_0$	1/[A] = kt + 1/[A]$_0$
Straight Line Plot	[A] vs t	Ln [A] vs t	1/[A] vs t
Slope	Slope = - k	Slope = - k	Slope = k
Half-Life	$t_{1/2}$ = [A]$_0$/2k	$t_{1/2}$ = 0.693/k	$t_{1/2}$ = 1/k[A]$_0$