Summary of the Kinetics for Reactions of the Type *aA → Products* that are Zero, First, or Second Order in [A]			
	Order		
	Zero	***First***	***Second***
Rate Law	$Rate = k$	$Rate = k[A]$	$Rate = k[A]^2$
Integrated Rate Law	$[A] = -kt + [A]_0$	$\ln[A] = -kt + \ln[A]_0$	$\frac{1}{[A]} = kt + \frac{1}{[A]_0}$
Plot that produces a straight line	$[A] \; versus \; t$	$\ln[A] \; versus \; t$	$\frac{1}{[A]} \; versus \; t$
Relationship of Rate Constant to the Slope of Straight Line	$Slope = -k$	$Slope = -k$	$Slope = k$
Half-life	$t_{1/2} = \frac{[A]_0}{2k}$	$t_{1/2} = \frac{0.693}{k}$	$t_{1/2} = \frac{1}{k[A]_0}$