

First Order: $\ln[A]_t - \ln[A]_0 = -kt$

Second Order: $1/[A]_t = kt + 1/[A]_0$

Zero Order: $[A]_t = -kt + [A]_0$

1st Order Half Life: $t_{1/2} = \frac{0.693}{k}$

2nd Order Half Life: $t_{1/2} = \frac{1}{k[A]_0}$

Zero Order Half Life: $t_{1/2} = \frac{[A]_0}{2k}$