Integrated rate laws

differential rate laws are differential equations

rate =
$$\int_{\substack{t=0\\t=t}}^{k} = \int_{d[A]/dt}^{d[A]}$$

rate = $\int_{t=0}^{k} k[A] = \int_{d[A]/dt}^{d[A]/dt}$

rate =
$$\int k[A]^2 = \int -d[A]/dt$$

differential rate eqn integrated rate eqn
rate = k $[A]_t = -kt + [A]_0$