

$$C(t) = 5(8)^t \quad \text{↖ 8.125}$$

↓
mg/L

$$80 = 5(8)^t$$

$$16 = 8^t$$

$$\log_8 16 = t$$

① Initially $t = 0$

$$C(t) = 5(0.5)^0$$

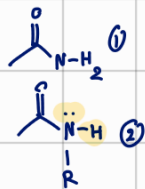
$$C(t) = 5 \text{ mg/L}$$

$$30\% \text{ of } 5 \text{ mg/L} = \frac{30}{100} \times 5 = 1.5 \text{ mg/L}$$

$$1.5 = 5(0.5)^t$$

$$0.3 = 0.5^t$$

$$\log_{0.5} 0.3 = t$$



$$C_t = C_0 e^{-rt}$$

$$= (9) e^{-(0.041)(3)}$$

$$C(t) = C_0 e^{-(rt)}$$

$$3 = 10 e^{-rt}$$

$$0.3 = e^{-rt}$$

$$\ln 0.3 = -rt$$

$$\frac{-\ln 0.3}{9} =$$

$$0.2 C_0 = C_0 e^{-(rt)}$$

$$\ln 0.2 = -rt$$

$$\ln 0.2 = -0.09t$$

$$C_0 = 5$$

$$C_t = 3.5$$