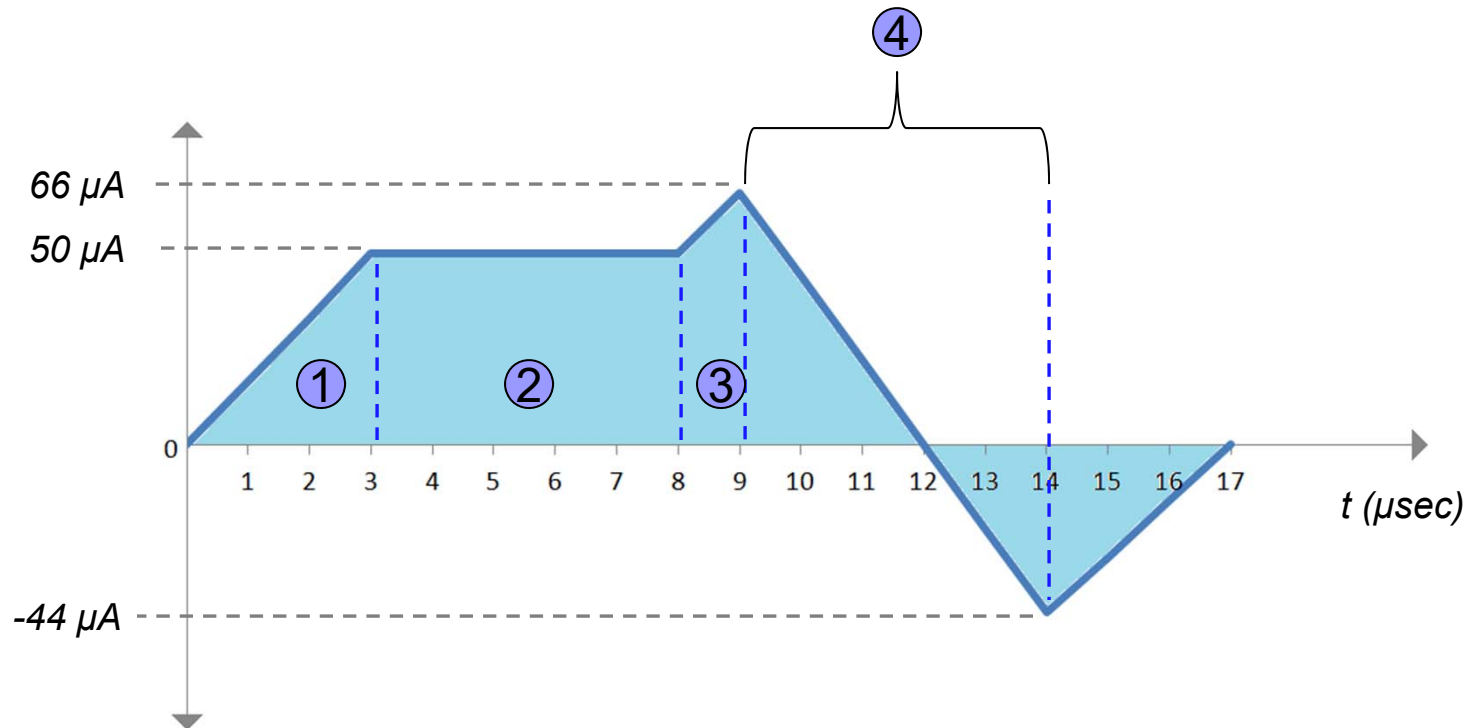
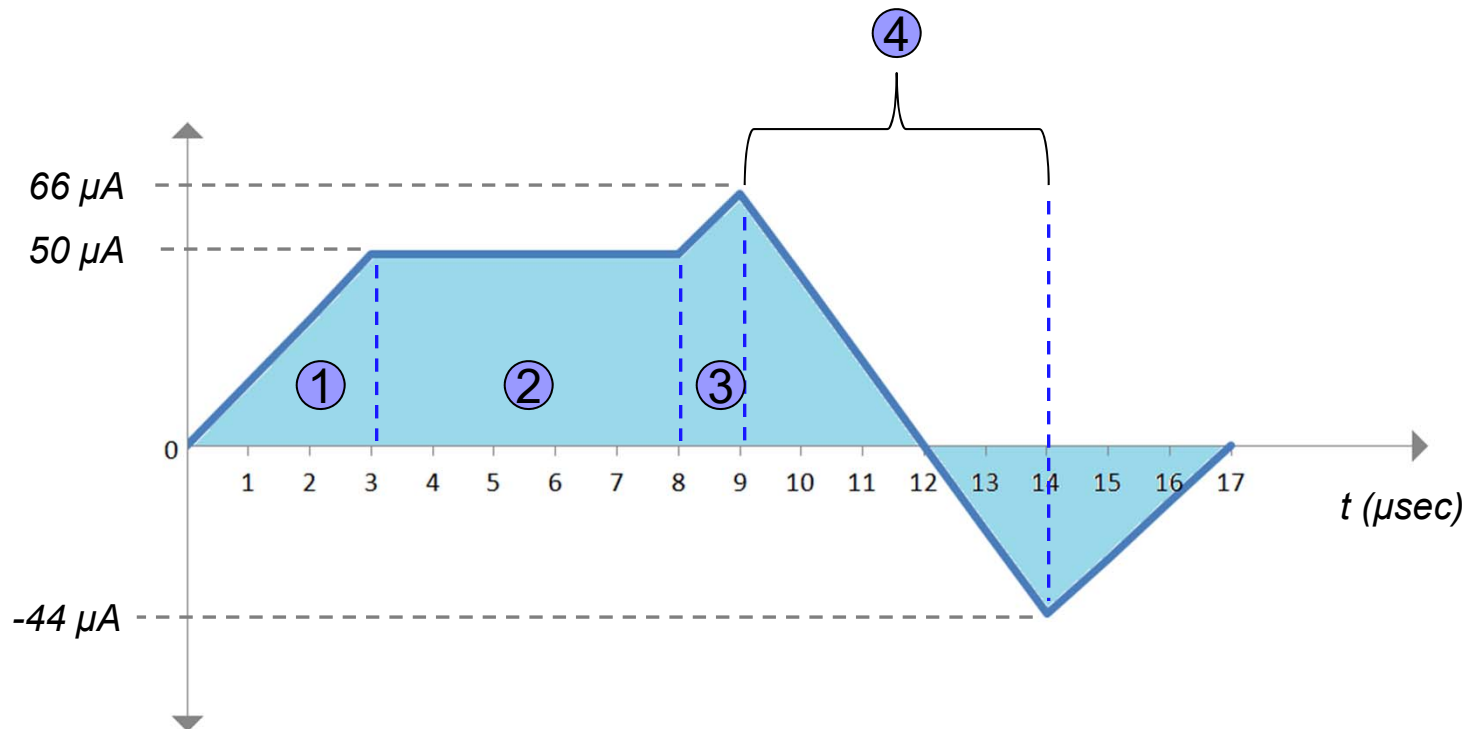


ICP



Given $L = 200mH$, find $V_L(t)$ for each region (1, 2, 3 and 4)

ICP



$$V_L(t) = L \frac{di}{dt}$$

$$V_L(t) = 0.2H \, di/dt$$

$$\begin{aligned} \textcircled{1} \quad V_L(t) &= 0.2H \, di/dt \\ &= 0.2H (50\mu A/3\mu s) \\ &= 3.33V \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad V_L(t) &= 0.2H \, di/dt \\ &= 0.2H (0\mu A/5\mu s) \\ &= 0.0V \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad V_L(t) &= 0.2H \, di/dt \\ &= 0.2H (16\mu A/1\mu s) \\ &= 3.20V \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad V_L(t) &= 0.2H \, di/dt \\ &= 0.2H (-110\mu A/5\mu s) \\ &= -4.40V \end{aligned}$$