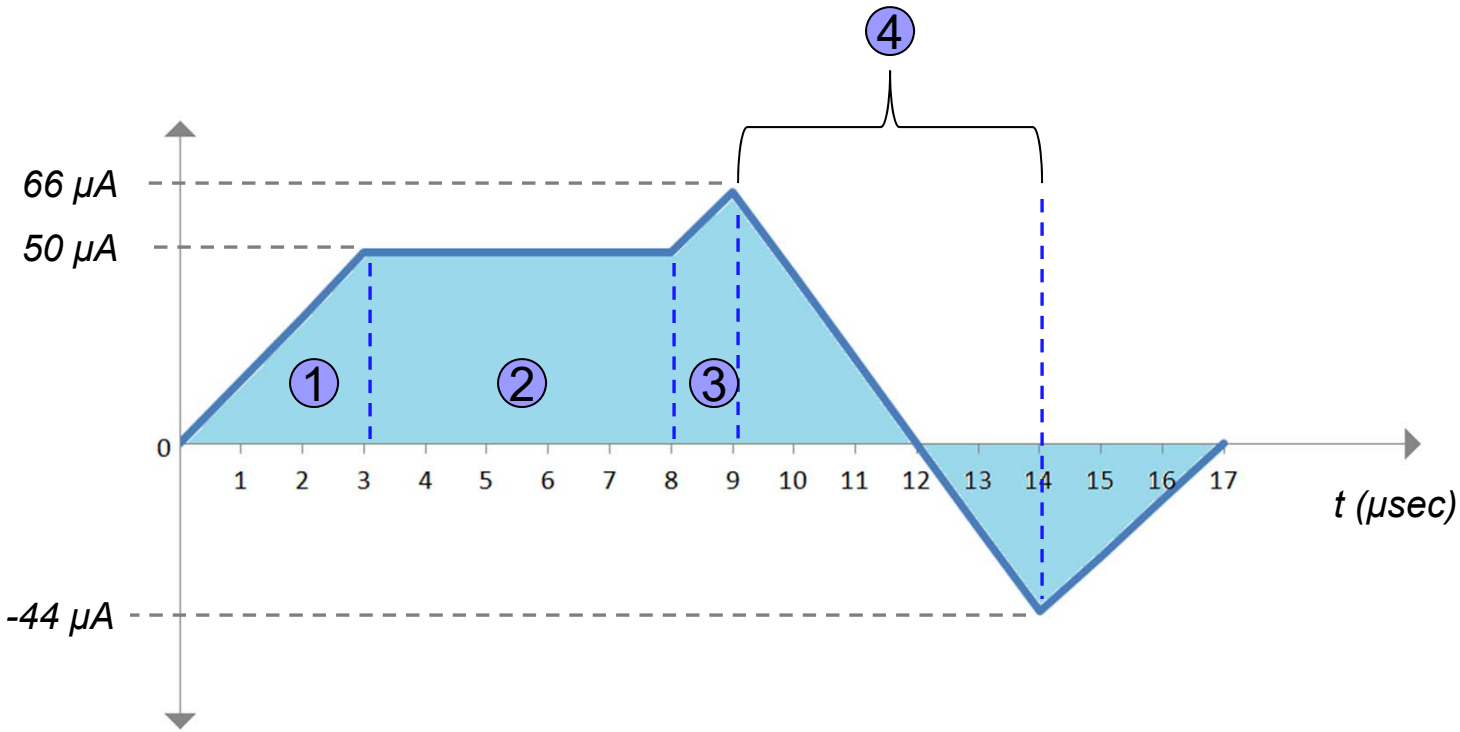
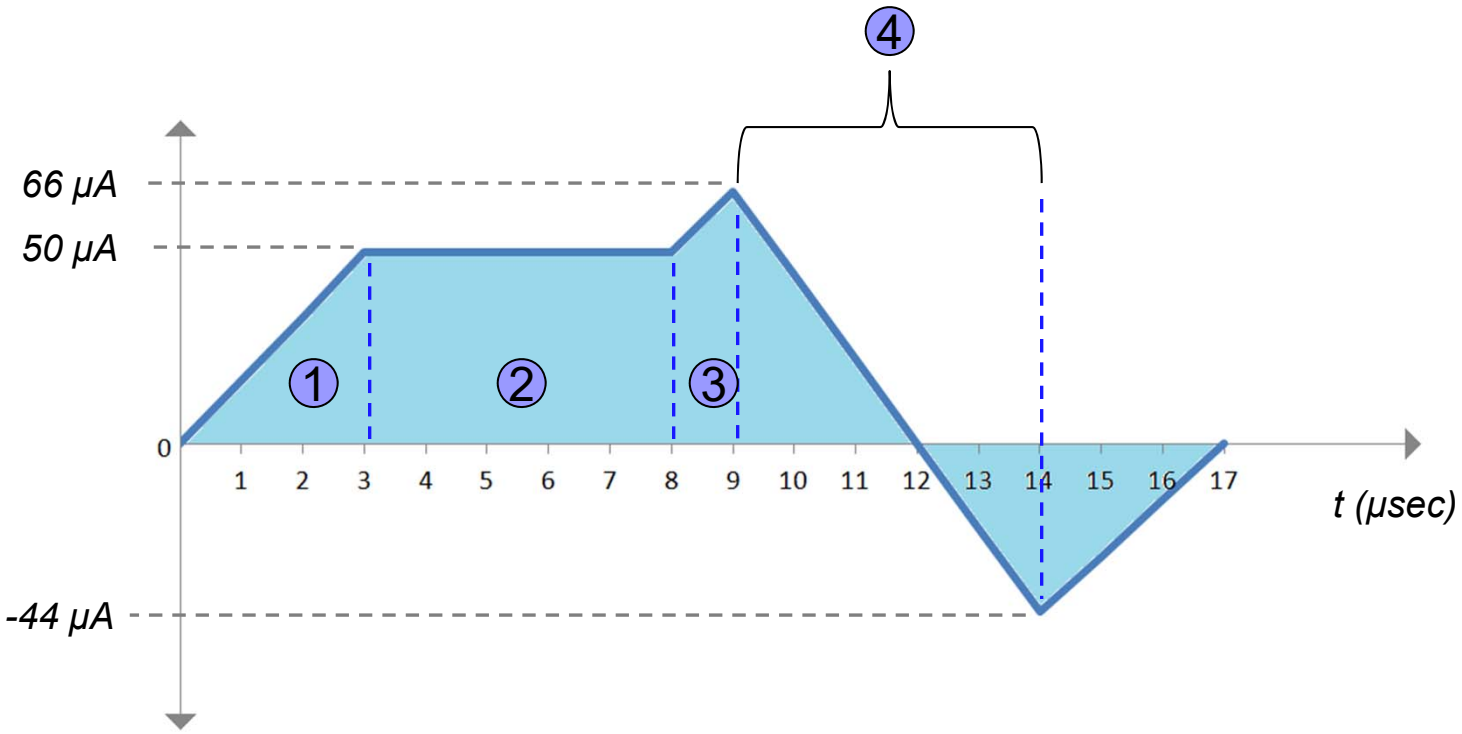
ICP



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

ICP



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

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

① $V_L(t) = 0.2H\ di/dt$
$= 0.2H\ (50uA/3us)$
$= 3.33V$

② $V_L(t) = 0.2H\ di/dt$
$= 0.2H\ (0uA/5us)$
$= 0.0V$

③ $V_L(t) = 0.2H\ di/dt$
$= 0.2H\ (16uA/1us)$
$= 3.20V$

④ $V_L(t) = 0.2H\ di/dt$
$= 0.2H\ (-110uA/5us)$
$= -4.40V$

NP