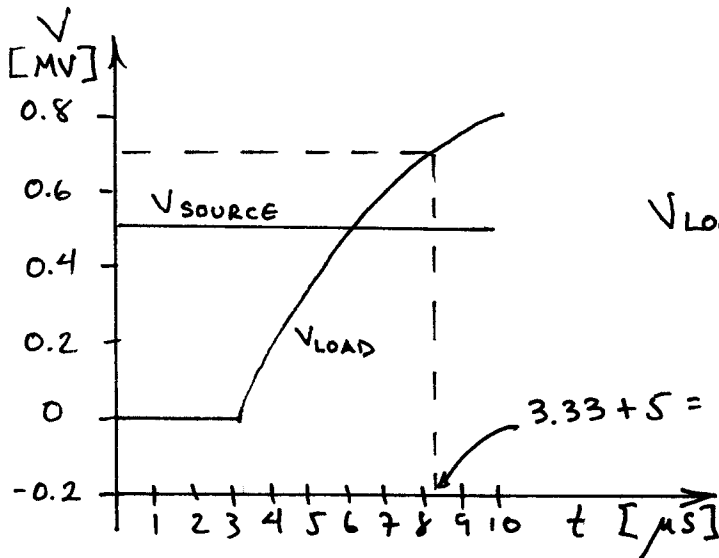


Homework 8

9.6) Assumptions: $v = \text{speed of light}$
 $l = 1 \text{ km}$
 Source switch closes at $t=0$

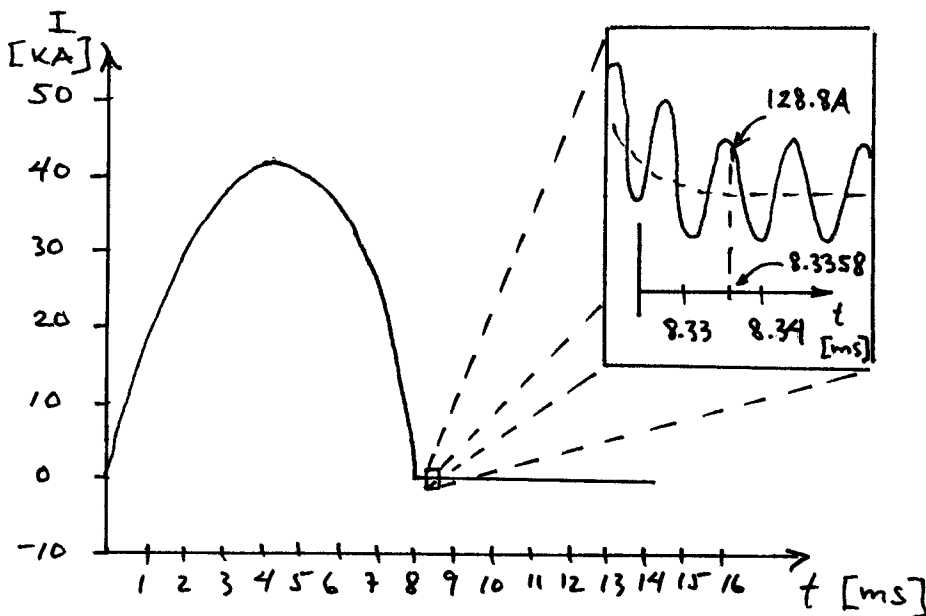
$$\tau = \frac{l}{c} = 3.33 \mu\text{s}$$



$$V_{\text{Load}} @ 8.33 \mu\text{s} = 707.33 \text{ kV}$$

$$3.33 + 5 = 8.33 \mu\text{s}$$

9.12) Current @ point c



Assumption

Fault occurs @ $t=0$

The current is interrupted @ $t=8.33 \text{ ms}$

$$I @ t = 8.33 + 2.5 = 128.8 \text{ A}$$

ms μs