PP First order circuits 004

Unlimited Attempts.

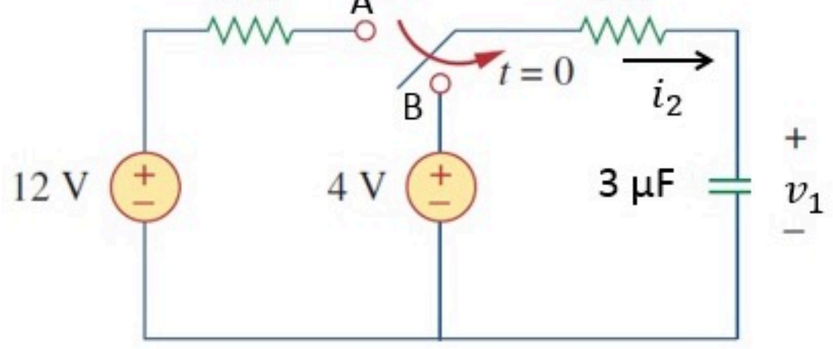
The switch has been in position A for a long time. At time $t = 0$, the switch moves to position B.

Find $v_1(t) = D1$ for $t = 0^-$

$= A1 \cdot e^{-t/tau1} + B1$ for $t > 0$

Find $i_2(t) = D2$ for $t = 0^-$

$= A2 \cdot e^{-t/tau2} + B2$ for $t > 0$



Given Variables:

. : . .

Calculate the following:

D1 (V) :

12 ✓

A1 (V) :

8 ✓

B1 (V) :

4 ✓

tau1 (us) :

6 ✓

D2 (A) :

0 ✓

A2 (A) :

-4 ✓

B2 (A) :

0 ✓

tau2 (us) :

6 ✓

Hint: Find the capacitor voltage before and after the switch