

Answer



Solution $V_c = \varepsilon - I^*R$ = 32V - (2mA*5000 ohms)= 32V - 10V

 $V_c = 22V$, the potential difference between the capacitor

The capacitance given will be used in finding the charge between the capacitor, Q; $Q = V_c^*C.$ = 22V * 30uF

Q =660 uC, this will be the charge between the capacitor. Units in micro Coulumb.