



Given nodal voltage $V_c(0) = 28V$, answer the following questions:

Q3.1. What is the RC time constant of this circuit?

Q3.2. Deduce i_R at time $t = 0$.

Q3.3. Deduce i_R at time $t = 8$.

Q3.4. Deduce i_R at time $t = 30$.

Q3.5. Deduce i_R at time $t = 100$.

Write your answers in the following format.

Q3.1. RC time constant, $t_{RC} = 0 \text{ s}$.

Q3.2. $i_R(0) = 0 \text{ A}$.

Q3.3. $i_R(8) = 0 \text{ A}$.

Q3.4. $i_R(30) = 0 \text{ A}$.

Q3.5. $i_R(100) = 0 \text{ A}$.