

Answer on Question 52988, Physics, Electric Circuits

Question:

If $1C$ of charge flows through any cross section of any conductor in 1 second, what is the current flowing through the conductor?

Solution:

The current I through the conductor is defined as the change in charge Δq per change in time Δt at any cross-sectional area of the conductor:

$$I = \frac{\Delta q}{\Delta t} = \frac{1C}{1s} = 1A.$$

Answer:

$$I = 1A.$$