

## **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  $\Delta q$  per change in time  $\Delta t$  at any cross-sectional area of the conductor:

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

### **Answer:**

$$I = 1A.$$