

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Electric Current Problems B

1. The filament of a light has 2550 C of charge flow through it in 50 min. What is the current in the filament?
2. A load has a current of 67 mA flow through it. What quantity of charge flows through the load in 25 s?
3. A heater has a current of 15 A flow through it. How many hours will it take for 45 kC of charge to flow through the heater?
4. How many electrons are in a charge of 52 C?
5. A student from a different universe calculates that 6.3  $\mu\text{C}$  of charge is  $5.4 \times 10^{16}$  electrons. What is the charge on an electron in that universe?
6. In a high voltage transmission line,  $8.2 \times 10^{25}$  electrons go past a tower in 36 s. What is the current in the transmission line?
7. A load has a current of 14 mA flow through it. How many electrons flow through the load in 84 s?