Electric Current Problems

1. If the current in a wire is measured to be 5 A, how much charge passes by a point in the circuit every minute?

1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The filament of a light has 1250 C of charge flow through it in 20 min. What is the current in the filament?

2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the current in a wire if $63×10^{-4} $C of charge passes by a point in 5 seconds?

3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A load has a current of 60 mA flow through it. What quantity of charge flows through the load in 80 s?

4)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How long does it take 50 C of charge to pass by a point if the current in the circuit is 0.89 A?

5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. a) If the current in a wire is measured to be 3 A, how much charge passes by a point in the circuit every minute?

6)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*BONUS\* b) How many electrons is this? (1 C = 6. 25 x 1018 electrons)

Calculate the Current

Calculate the current in each of the following circuit diagrams. The current at the source is represented by IT



IT = 15 A



IT = 10 A



VT = 12 V

*I****2 = \_\_\_\_***

I4 = 4.0 A

IT = 6.0 A