DATE _____ NAME _____

Teacher: Sergey GROUP F2

Lesson topic: Electric current
PHYSICS Homework

_____ of 5

1. Please make calculations to solve the word problems. Select the correct answer or type it in when needed..

If the rate of charge flowing past a point in a conductor is 7.2 coulombs per minute , then the current intensity in this conductor is _____ mA .

A 720

C 72

B 200

D 120

If a filament of a light bulb experiences a current of 0.3 A , the electric charge that will flow through a point P in the filament in 25 s will be _____.

A 8.3 C

C 5 C

B 7.5 C

D 12 C

A torch works at a current of 150 mA . If 1.95 C of charge is passed through the torch filament, the torch will run for _____.

A 9.4 s

C 7.9 s

B 13 s

D 34.5 s

If a light bulb can withstand a maximum current of 3 A , how many electrons pass by a point in the filament of the bulb in each second? Take 1.6×10^{-19} C to be the charge of an electron. Give your answer in scientific notation to two decimal places.

A 2.08×10^{18}

C 9.45×10^{18}

B 4.82×10^{19}

D 1.88×10^{19}

If 21 C of electric charge flows past a point in a circuit for 2.5 minutes , then the electric current intensity, in milliamperes, is _____.

A 140 mA

C 20 mA

B 840 mA

D 50.4 mA

LIVEWORKSHEETS