

Answer on Question #45703, Physics, Electromagnetism

Points A and B each have an electric potential of +12 V. How much work would be required to take 3 C of positive charge from A to B?

By the definition of electric potential (it is the work required to take 1 C of positive charge from A to B)

for 3 C we obtain :

$$W = q * U = 3C * 12V = 36 J$$