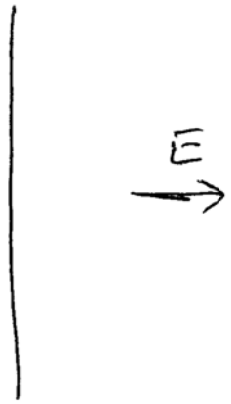
Quiz-06-Nov-2013	Name: solution	Number:
	Id#:	Section: 15

The electric field, at a distance of 40 cm, from a very long uniform wire of charge is 840 N/C. How much charge is contained in a 2.0 cm long of the wire?



$$E = \frac{\lambda}{2\pi\varepsilon_0 r}$$

$$\lambda = 2\pi\varepsilon_0 E r$$

$$= 2\pi\, 8.85\times10^{-12}\times 840\times 0.40$$

$$= 1.87\times10^{-8}\ C/m$$

$$q = \lambda l = 1.87\times10^{-8}\times 0.02$$

$$= 0.37\ nC$$

04 Sep	11 Sep	18 Sep	25 Sep	2 Oct	9 Oct	23 Oct	30 Oct	6 Nov	13 Nov	20 Nov	27 Nov	4 Dec	11 Dec	18 Dec

Solutions of the quizzes can be found on the webpage: http://faculty.kfupm.edu.sa/phys/aljalal/phys102.htm