Física 2 "C" Hoja de Trabajo 1. 05/06/2023
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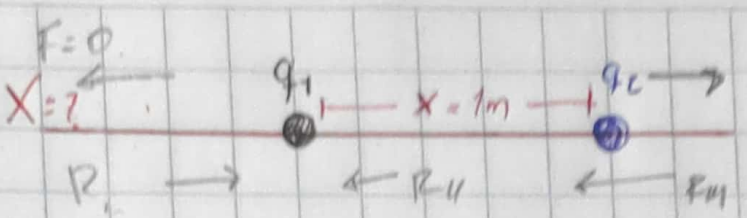

$x = ?$
$q_1 = -2.5\ \mu C$
$q_2 = 6\ \mu C$

$E_1 = E_2$

$$\frac{kq_1}{d^2} = \frac{kq_2}{(d+x)^2}$$

$$\frac{2.5\mu}{d^2} = \frac{6\mu}{(d+x)^2}$$

$$\frac{\sqrt{2.5\mu}}{d} = \frac{\sqrt{6\mu}}{d+x}$$

$$\sqrt{2.5\mu}\,(d+x) = \sqrt{6\mu}\,(d)$$

$$\sqrt{2.5\mu}\,d + \sqrt{2.5\mu} = \sqrt{6\mu}\,d$$

$$\sqrt{2.5\mu} = \sqrt{6\mu}\,d - \sqrt{2.5\mu}\,d$$

$$\sqrt{2.5\mu} = 0.868\,\mu d$$

$$d = 1.821\ m$$

$x = 1.82\ m$