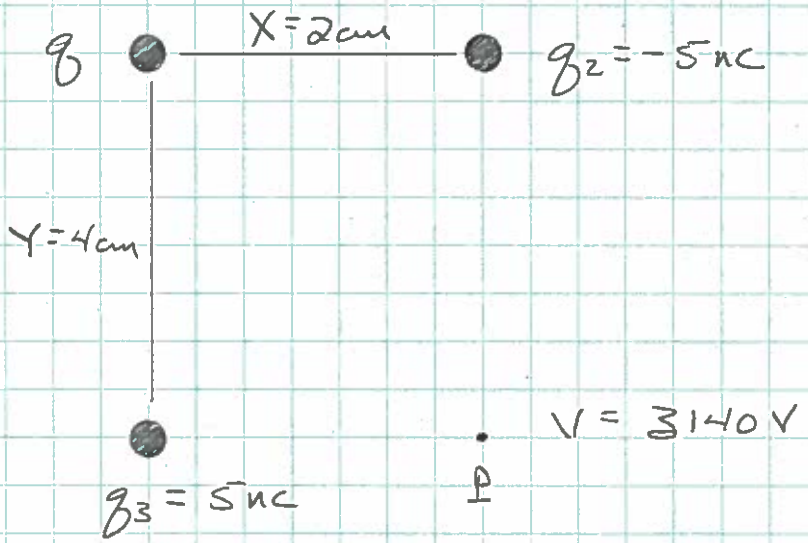

at P: $V = \sum_i \frac{Kq_i}{r_i} = \frac{Kq}{r} + \frac{Kq_2}{Y} + \frac{Kq_3}{X}$

$r = \sqrt{X^2+Y^2} = 4.472$ cm

So:

$$q = r\left(\frac{V}{K} - \frac{q_2}{Y} - \frac{q_3}{X}\right)$$

$$= 1.0 \times 10^{-8} \text{ C}$$

$$= \underline{10 \text{ nC}}$$