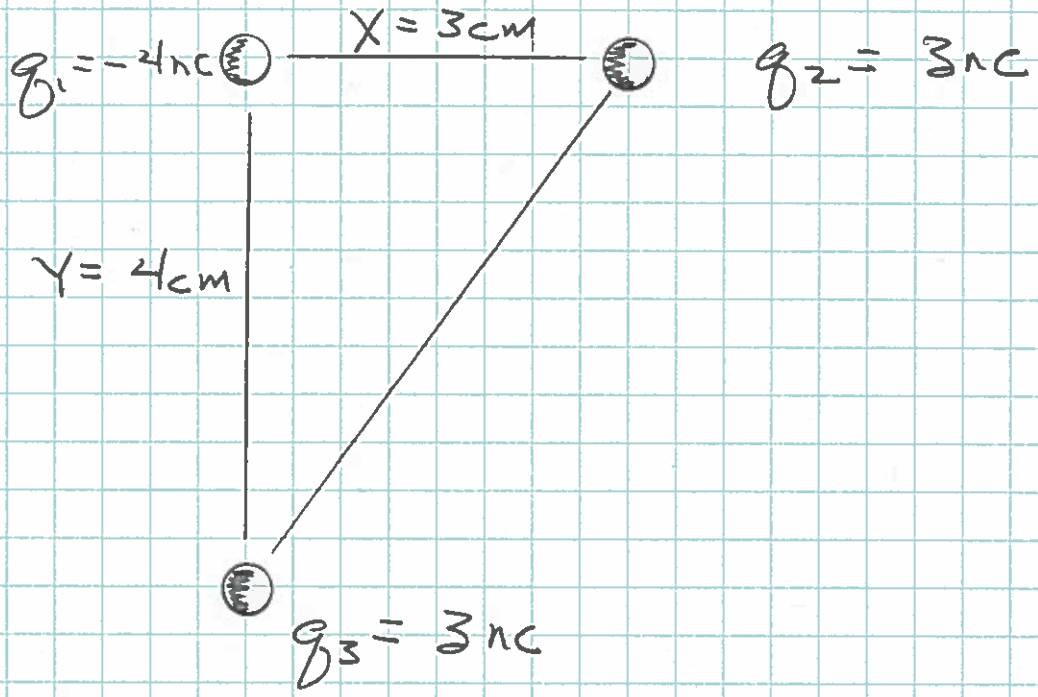

$$U = \sum_{\substack{\text{distinct} \\ \text{pairs}}} \frac{K q_i q_j}{r_{ij}}$$

$$= K\frac{q_1 q_2}{r_{12}} + K\frac{q_1 q_3}{r_{13}} = K\frac{q_2 q_3}{r_{23}}$$

$$r_{12} = X \quad ; \quad r_{13} = Y$$

$$r_{23} = \sqrt{X^2 + Y^2} = 5\,cm$$

So $U = -2.675 \times 10^{-6}\ J$