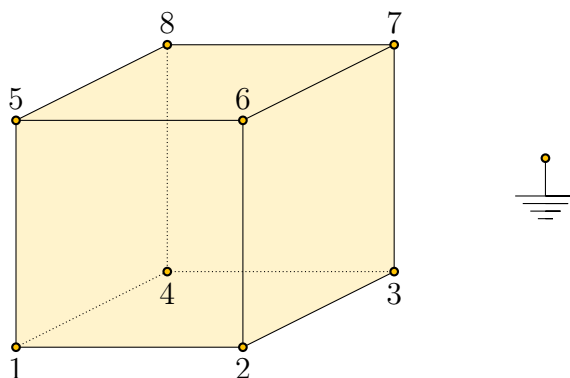




— You don't seem very afraid.
— You don't seem very frightening.
Sherlock

3d6

Eight ideal sources with EMF \mathcal{E}_i are connected with a negative pole to a point with zero potential (ground), and with a positive pole to the i -th vertex of the conducting homogeneous cube. The EMF values of the sources are $\mathcal{E}_1 = 2$ V, $\mathcal{E}_2 = 3$ V, $\mathcal{E}_3 = 4$ V, $\mathcal{E}_4 = 1$ V, $\mathcal{E}_5 = 5$ V, $\mathcal{E}_6 = 6$ V, $\mathcal{E}_7 = 7$ V, and the potential in the center of the cube turned out to be $\varphi = 4$ V. How much will the potential in the center of the cube change if the source with EMF \mathcal{E}_8 is replaced by a source with EMF $5\mathcal{E}_8$?



First hint — 18.04.2022 14:00 (Moscow time)

Second hint — 20.04.2022 14:00 (Moscow time)

Final of the first round — 22.04.2022 22:00 (Moscow time)