

Answer on Question #42040, Physics, Electromagnetism — for completion

Question: what is the formula for electric potential center of the square?
(gauss's law)

Solution

A square of side a with charges in the verticies of q_1, q_2, q_3, q_4 will have the electrical potential in its center of

$$V = \frac{\sqrt{2}}{4\pi\epsilon a} (q_1 + q_2 + q_3 + q_4)$$