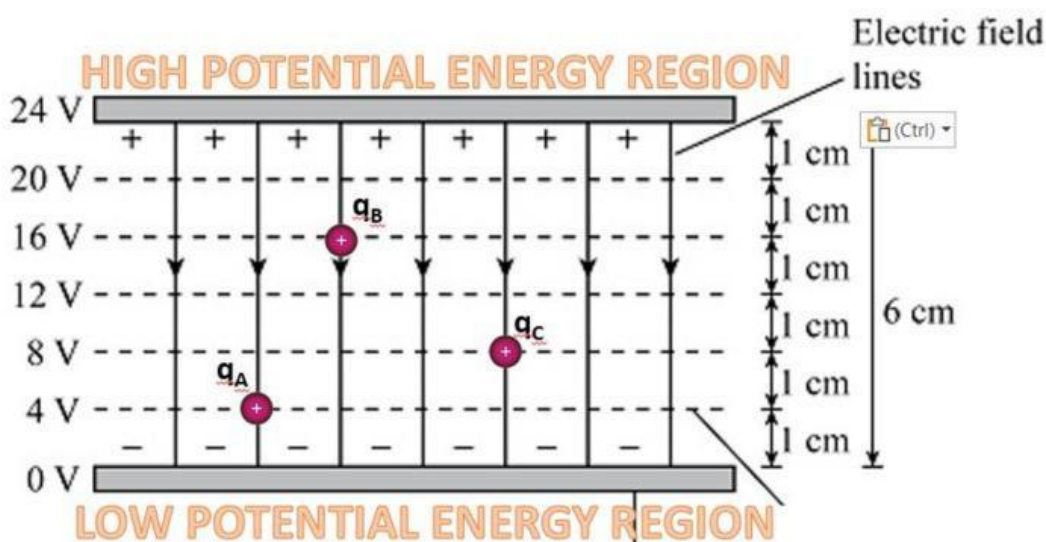


Member 2: Electric Potential Energy

Directions: Analyze the picture below to answer the following questions. For nos., 1-4, choose your answers from the words enclosed with parentheses.

Electric potential is represented by the capital letter V and measured in Joules per Coulomb (J/C) which is Volt (V), where 1 Joule (J) per 1 coulomb (C) of charge is equal to 1 Volt (V). So, the 24 V, 20 V, and up to 0 V are the electric potentials at specific positions of the charge in the electric field, as shown in the picture below.



The picture above shows two identical positive test charges, q_A , q_B , and q_C , positioned at a certain location in the electric field between the two plates. Each charge possesses electric potential energy.

1. Which of the 3 charges has the highest electric potential energy?
Ans. _____ (q_A , q_B , and q_C)
2. Which of the 3 charges has the lowest electric potential energy?
Ans. _____ (q_A , q_B , and q_C)
3. Which of the 3 charges has the highest and lowest electric potential?
Ans. Highest : _____ (q_A , q_B , and q_C) Lowest: _____ (q_A , q_B , and q_C)
4. How is the electric potential energy of the charge related to the electric potential?
Ans. The _____ (higher or lower) the electric potential energy the charge has, the _____ (higher or lower) the electric potential of the charge.
5. What is electric potential?
Ans. The electric potential is the _____ (electric potential energy or charge) per _____ (electric potential energy or charge) at a specific point in an electric field.