In the system below A, B, and C are positive charges, q is a negative charge. How do you calculate the electric potential energy of the system?





In the system below A, B, and C are positive charges, *q* is a negative charge. How many interactions do we need to calculate the electric potential energy of the system?



In the system below A, B, and C are positive charges, q is a negative charge. How many interactions do we need to calculate the <u>extra</u> electric potential energy in the system as a result of adding the test charge?



When a positive test charge is released from rest near a (fixed) positive source charge, what happens to the <u>electric potential</u> of the positive test charge?



- 1. It will increase because the charge will move in the direction of the electric field.
- 2. It will decrease because the charge will move in the direction opposite to the electric field.
- 3. It will decrease because the charge will move in the direction of the electric field.
- 4. It will remain constant because the electric field is uniform.
- 5. It will remain constant because the charge remains at rest.

When a negative test charge is released from rest near a (fixed) positive source charge, what happens to the <u>electric potential</u> of the negative test charge?



- 1. It will increase because the charge will move in the direction of the electric field.
- 2. It will decrease because the charge will move in the direction opposite to the electric field.
- 3. It will decrease because the charge will move in the direction of the electric field.
- 4. It will increase because the charge will move in the direction opposite to the electric field.
- 5. It will remain constant because the charge remains at rest.