

The work energy theorem states:

$$W = \int_i^f \mathbf{F}_{net} \cdot d\mathbf{l} = \frac{1}{2}mv_f^2 - \frac{1}{2}mv_i^2$$

This theorem is valid:

- A. only for conservative forces.
- B. only for non-conservative forces.
- C. only for forces which are constant in time
- D. only for forces which can be expressed as potential energies
- E. for all forces.

A + and - charge are held a distance R apart and released. The two particles accelerate toward each other as a result of the Coulomb attraction. As the particles approach each other, the energy contained in the electric field surrounding the two charges...



- A. increases
- B. decreases
- C. stays the same