

Checkpoint 3



A positive charge is placed on the left side of a negative charge. The magnitude of the negative charge is twice that of the positive charge.



Is there any (finite) location that a third charge can be placed such that the total potential energy of the system does not change?

- YES, as long as the third charge is positive
- YES, as long as the third charge is negative
- YES, no matter what the third charge is
- NO

C) "Placing a charge twice the distance from the plus to the minus will keep the potential energy the same no matter the sign."

D) "It is impossible because the potential energy between the new charge and each of the original charges will be different from one another and will be unable to completely cancel."

LET'S DO THE CALCULATION!

