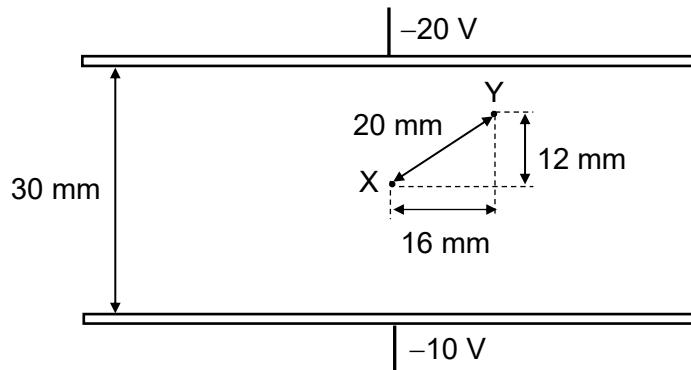


- 18** The diagram shows two large horizontal metal plates situated 30 mm apart. The top and bottom plates are at potentials -20 V and -10 V respectively.



What is the work done by the electric field when a charge of  $5.0 \mu\text{C}$  is moved from point X midway between the metal plates to point Y?

- A**   $-3.3 \times 10^{-5} \text{ J}$     **B**   $-2.0 \times 10^{-5} \text{ J}$     **C**   $2.0 \times 10^{-5} \text{ J}$     **D**   $3.3 \times 10^{-5} \text{ J}$