

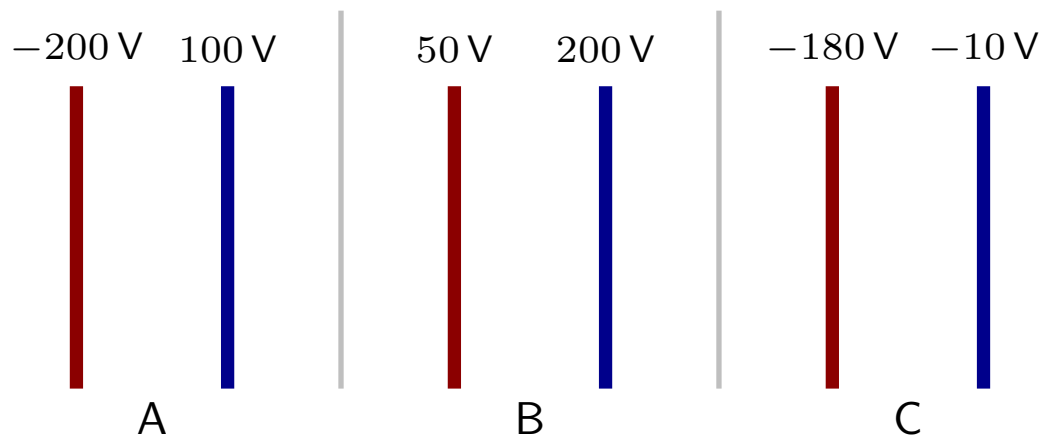
Warm Up Question 1

Consider the equipotential diagram E of the Stop to Think 21.5 exercise. How does the electric field at the left edge of this diagram (closer to the 50 V line) compare to that at the right edge (closer to the 0 V line). Is the field at the left larger, smaller or the same? Explain your answer.

1. Larger. Larger potential.
2. Larger. Since $E = \frac{V}{d}$
3. Smaller. The lines are less dense on the left.
4. Same. The same charges are producing the field everywhere.

Question 1

Three pairs of uniformly charged infinite plates are separated by the same distance. Each plate is at the illustrated electric potential.

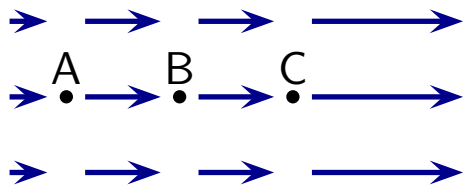


Which of the following is the correct ranking of the magnitude of the electric field between the plates?

1. $A > B > C$
2. $A > C > B$
3. $B > A > C$
4. $B > C > A$

Question 2

An electric field produced by some sources charges is as illustrated.



Which of the following ranks the electric potential at the illustrated points?

1. $V_A = V_B = V_C$
2. $V_A > V_B > V_C$
3. $V_A < V_B < V_C$
4. $V_A = V_B < V_C$
5. $V_A < V_B = V_C$

Warm Up Question 2

A sphere made of a perfect conductor is placed to the left of a single positive point charge. How does the electric potential on the left side (farthest from the point charge) of the sphere compare to that on the right side (closer to the point charge)? Explain your answer.

1. Larger on the left. Smaller r .
2. Smaller on the left. Negative charge is attracted to the left.
3. Same. The entire conductor is at the same potential.