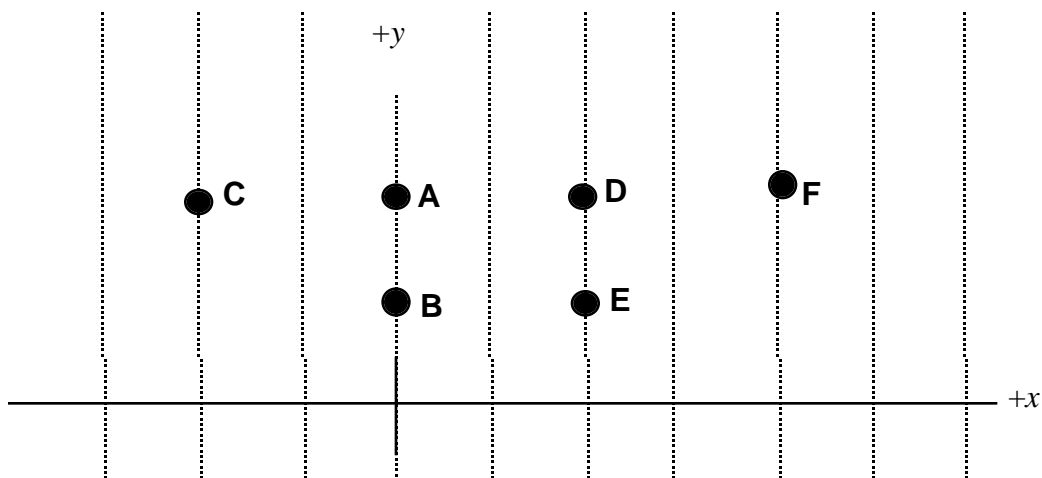


Uniform Electric Field/Potential Lines—Strength of the Electric Field¹⁵²

We have a large region of space that has a uniform electric field in the $+x$ direction (\Rightarrow). In the diagram below we show the equipotential lines for this field. At the point $(0,0)$ m, the electric field is $30 \hat{i}$ N/C and the electric potential is 100 volts.

Rank the strength (magnitude) of the electric field from greatest to least at the following points within this region.

A: $(0, 6)$ m **B:** $(0, 3)$ m **C:** $(-3, 6)$ m **D:** $(3, 6)$ m **E:** $(3, 3)$ m **F:** $(6, 6)$ m



Greatest 1_____ 2_____ 3_____ 4_____ 5_____ 6_____ Least

Or, all of the points have the same electric field magnitude. _____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)

Basically Guessed

Sure

Very Sure

1 2 3 4 5 6 7 8 9 10

¹⁵² C. Hieggelke