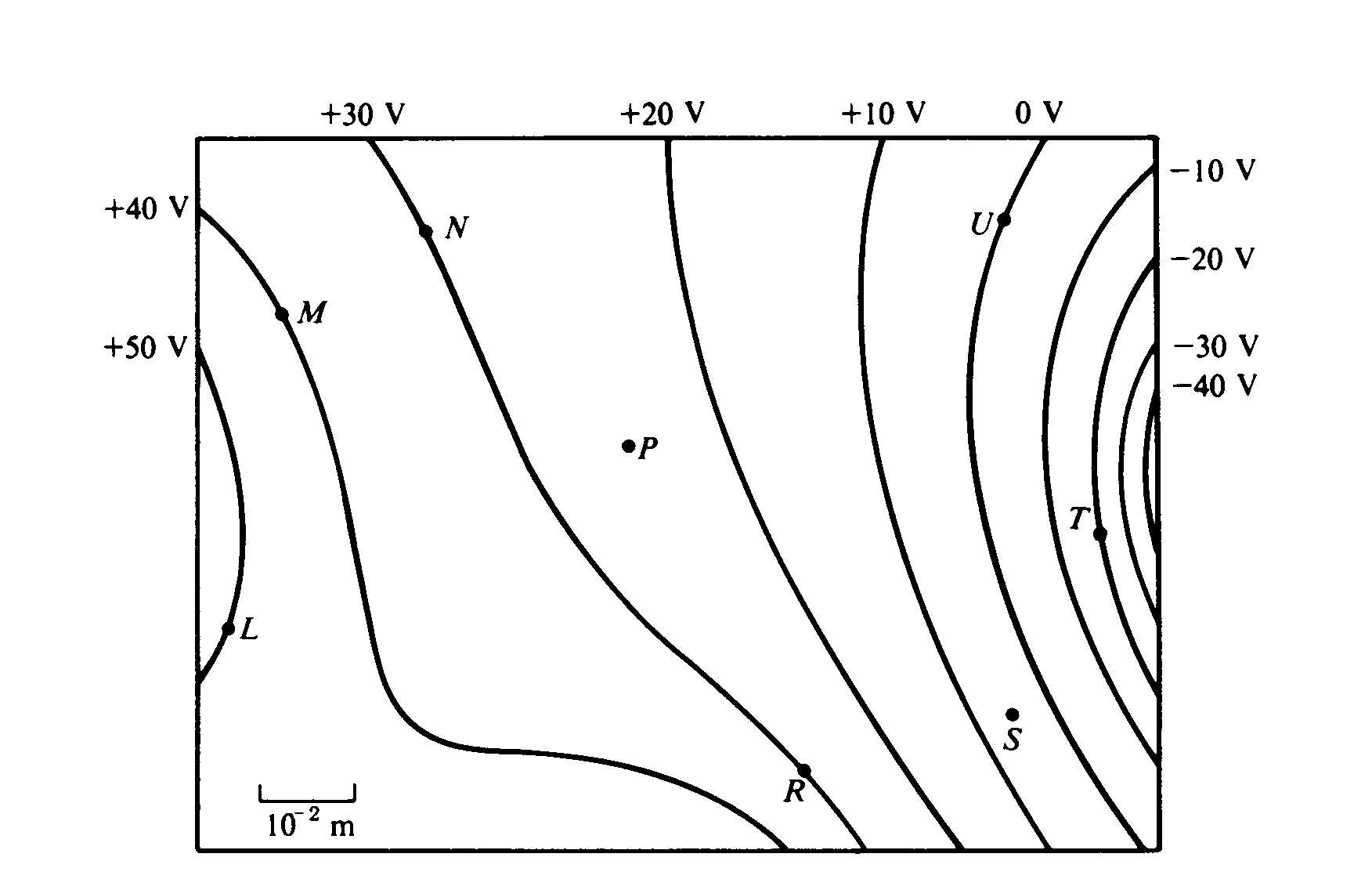
**HW 13.5 – Electric Fields Name: ……………………………………**



Three point charges produce the electric equipotential lines shown on the diagram above.

1. Draw arrows at points L, N. and U on the diagram to indicate the direction of the electric field at these points. (3) **USE A PENCIL**
2. At which of the lettered points is the electric field *E* greatest in magnitude? Explain your reasoning. (2)
3. Compute an approximate value for the magnitude of the electric field *E* at point P. (2)
4. Compute an approximate value for the potential difference, *VM – VS*, between points M and S. (2)
5. Determine the work done by the field if a charge of +5 × 10–12 C is moved from point M to point R. (3)
6. If the charge of +5 × 10–12 C were moved from point M first to point S, and then to point R, would the answer to e) be different, and if so, how? (2)