

TERMS

Be able to define or discuss the following terms with their SI units, if any.

1. electric potential energy U
2. (electric) potential V
3. (electric) potential difference $V_a - V_b$
4. electron volt
5. equipotential line
6. equipotential surface
7. equipotential volume
8. potential gradient $\vec{\nabla} V$

EQUATIONS

Understand the meaning and know the SI units of all the symbols in these equations—and be able to use the equations to solve problems.

1. Eq. (23.9)
2. $\frac{W_{a \rightarrow b}}{q_0} = V_a - V_b$
3. Eqs. (23.14) and (23.15)
4. Eq. (23.16)
5. Eq. (23.17)
6. Eqs. (23.19) and (23.23)

SKILLS

Use the material in these sections to be able to:

1. include the electric potential energy and/or the work done due to an electric potential difference in energy problems.
2. outline the method for finding the potential V from a continuous distribution of charge using a scalar integral.
3. explain when and why sharp points and small radii are desirable and when and why flatter areas are desirable.

Attitude

The longer I live, the more I realize the impact of attitude on life. Attitude, to me, is more important than facts. It is more important than the past, than education, than money, than circumstances, than failures, than successes, than what other people think or say or do. It is more important than appearance, giftedness, or skill. It will make or break a company ... a church ... a home. The remarkable thing is we have a choice every day regarding the attitude we will embrace for that day. We cannot change our past ... we cannot change the fact that people will act in a certain way. We cannot change the inevitable. The only thing we can do is play on the one thing we have, and that is our attitude ... I am convinced that life is 10% what happens to me and 90% how I react to it. And so it is with you ... we are in charge of our attitudes.

Charles Swindoll