

9 Electric potential and voltage – Part 1 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 the electric potential energy carried by each unit of charge (energy per coulomb), in volts.

2.2 $U = qV = 3.0 \times 4.0 = 12 \text{ J}$.

2.3 from high to low potential.

2.4 $U = qV = 0.5 \times 12 = 6.0 \text{ J}$.

2.5 potential is a scalar (a single number) so potentials just add; the field is a vector, so fields must be added by direction too.