Physics 1214 - General Physics II

Quiz #5 - 2013.01.30 Solutions

1. What is the difference between resistance and resistivity?

Resistance is simply the ratio of the potential difference V to the current I, which depends on the shape of the material and is measured in ohms $(\Omega = V/A)$. Resistivity is a property of the material, independent of shape and size and is measured in ohm-meters.

2. Electromotive forces (emf) are required for what reason?

Emf devices are needed for a conductor to have a steady circuit.