

Answer on Question #45724 – Physics, Other

1 volt is equal to

1 Volt could be defined as potential difference between two points in a wire needed to dissipates one watt of power at a current of one ampere

$$1V = \frac{1W}{1A}$$

From the Ohm's law:

$$1V = 1A \cdot 1\Omega$$

Also, 1 volt is equal to the potential difference between two point of electrical field that require 1 J of work for the charge of 1C to be passed through it.

$$1V = \frac{1J}{1C}$$