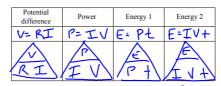
Multiple Formulas



1. What is the power of an appliance if it works on 2.5 A and has a $\ensuremath{5\Omega}$ resistor?

3. What is the resistance of a resistor if a circuit is on for 20 minutes, used 20 000 J of energy and had 4 A?

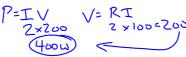
R= V 4.2 (64) V= E 4x20x60

50 000 J of energy and 220 V?

5. What is the power of an appliance if it works on 5 A and has a 3.5 Ω resistor?

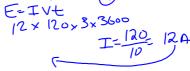


6. What is the O resistor?



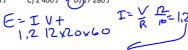
difference (voltage) across its terminals is 120 V. This element is used for 3 hours. How much electrical energy was used during this period?

A) 4 320 J B) 259 200 J C) 1440 000 J D) 5 552 000 J

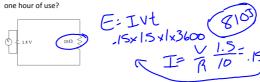


8. You connect a fan to a 12-V power source. The total resistance of the wires used is 10 Ω . You operate the fan for 20 min. How much energy is used by the wires during this period?

B) 288 J C) 2 400 J D) 17 280 J A) 4.8 J



9. How many joules of heat will the following circuit give off in exactly one hour of use?



10. To decorate a Christmas tree, you decide to use a string of lights made up of 10 ny idencal light bulbs connected in series. This string of lights is connected to a 120 V power source. The power dissipated by the string of lights is 30 W. What is the resistance of each light bulb?

A) 0.4 Ω