

Answer on Question#38511, Physics, Electric Circuits

The power is $P=IU$, where I is the current and U is the voltage. Using Ohm's law $I=\frac{U}{R}$ one might rewrite this formula in two different forms:

$$P=\frac{U^2}{R}=IR^2 . \text{ Hence, if one has resistance and power, the current is } I=\frac{P}{R^2} .$$