Soln2766: We have the initial resistance r_i and the final resistance r_f given by

$$r_i = r\frac{\ell}{A} \text{ and } r_f = r\frac{2\ell}{A/2} = r\frac{4\ell}{A}. \text{ Therefore } r_f = 4\ r_i$$

Since power $P = V.I = V^2/r$ and the voltage remains the same P decreases by a factor of 4.