

- 22 Two heating elements X and Y of a domestic fan heater are made of wire of the same resistivity and length. They are connected in parallel to a power supply. Element X transfers energy at a rate of 1.0 kW and element Y transfers energy at a rate of 1.5 kW.

The diameters of the wire of the heating elements are d_x and d_y .

What is the value of the ratio $\frac{d_x}{d_y}$?

A 0.67

B 0.82

C 1.2

D 1.5

