

31 Two wires P and Q have resistances R_P and R_Q respectively. Wire P is twice as long as wire Q and has twice the diameter of wire Q. The wires are made of the same material.

What is the ratio $\frac{R_P}{R_Q}$?

A 0.5

B 1

C 2

D 4

32 A potential divider consists of a fixed resistor R and a light-dependent resistor (LDR).