30 Which values of current and resistance will produce a rate of energy transfer of 16 J s

	current / A	resistance / Ω
A	1	4
B	2	8
C	4	1
D	16	1

31 A cylindrical wire 4.0 m long has a resistance of 31 Ω and is made of metal of resistivity $1.0 \times 10^{-6}\,\Omega\,\text{m}$.

What is the radius of cross-section of the wire?

A $1.0 \times 10^{-8}\,\text{m}$

B $2.0 \times 10^{-8}\,\text{m}$

C $6.4 \times 10^{-8}\,\text{m}$

D $2.0 \times 10^{-4}\,\text{m}$

Space for working