

- 32** A pencil is used to draw a line of length 30 cm and width 1.2 mm. The resistivity of the material in the pencil is $2.0 \times 10^{-5} \Omega \text{ m}$ and the resistance of the line is 40 k Ω .

What is the thickness of the line?

- A** $1.25 \times 10^{-10} \text{ m}$
- B** $1.25 \times 10^{-8} \text{ m}$
- C** $1.25 \times 10^{-7} \text{ m}$
- D** $1.25 \times 10^{-5} \text{ m}$

Space for working