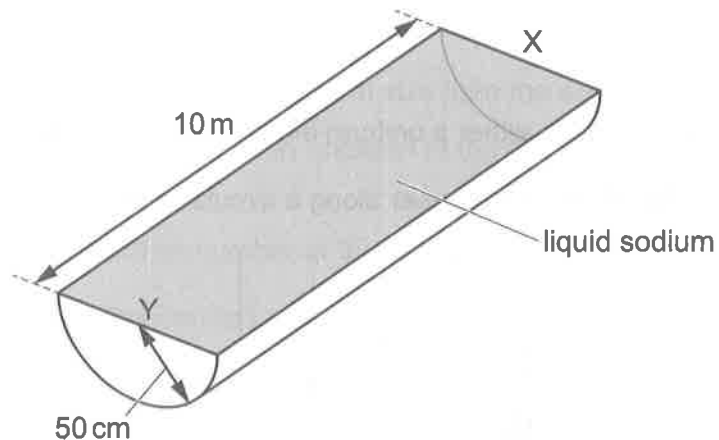


**24** A semi-circular container is filled with liquid sodium, as shown.



The container has a radius of 50 cm and a length of 10 m.

The resistivity of liquid sodium is  $4.9 \times 10^{-8} \Omega \text{ m}$ .

What is the resistance of the sodium between the ends X and Y of the container?

- A**  $6.2 \times 10^{-7} \Omega$
- B**  $1.2 \times 10^{-6} \Omega$
- C**  $6.2 \times 10^{-4} \Omega$
- D**  $1.2 \times 10^{-3} \Omega$

