What is B at the point shown?
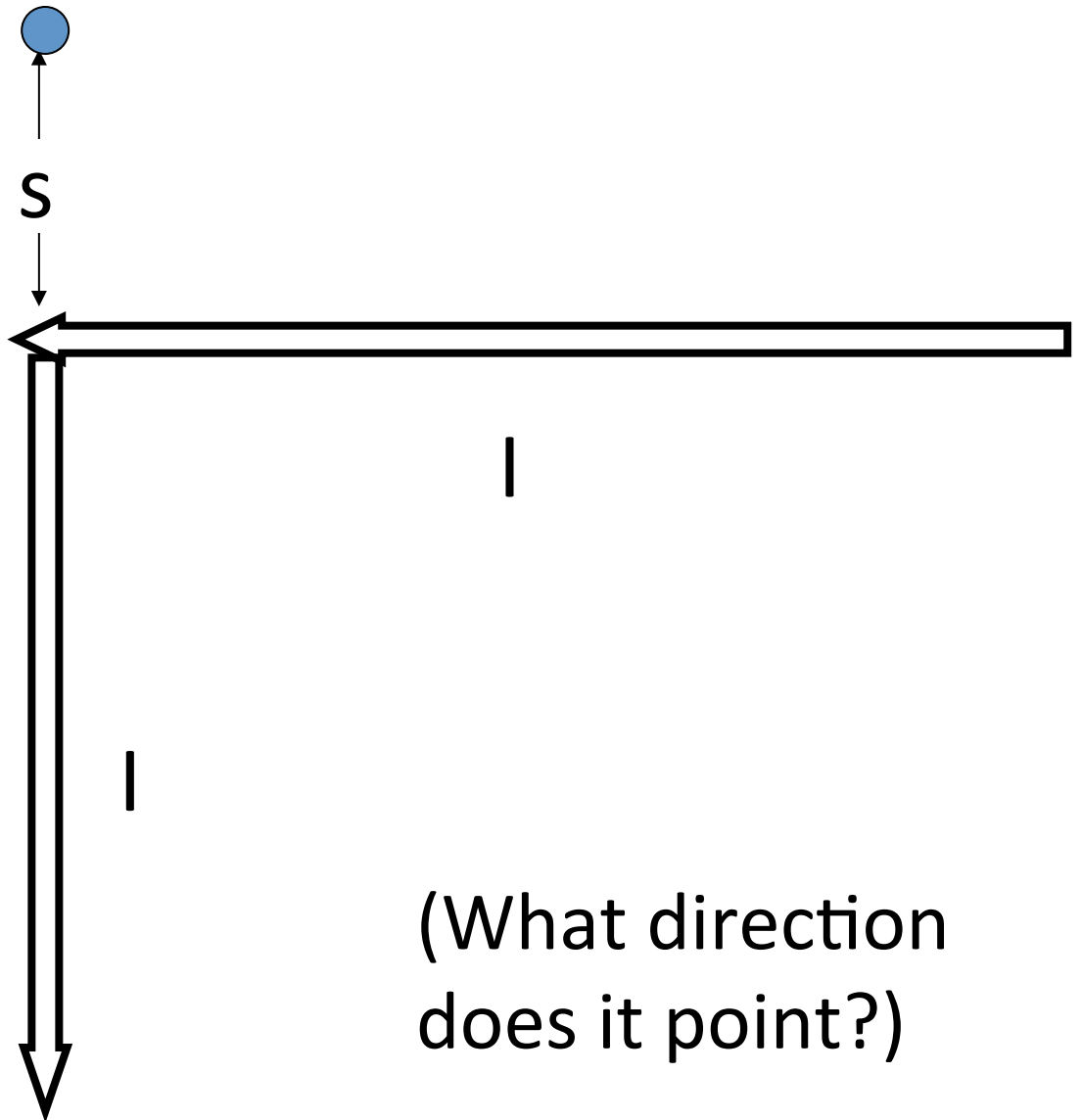
A) $\dfrac{\mu_0}{\pi\ s}I$

B) $\dfrac{\mu_0}{2\pi\ s}I$

C) $\dfrac{\mu_0}{4\pi\ s}I$
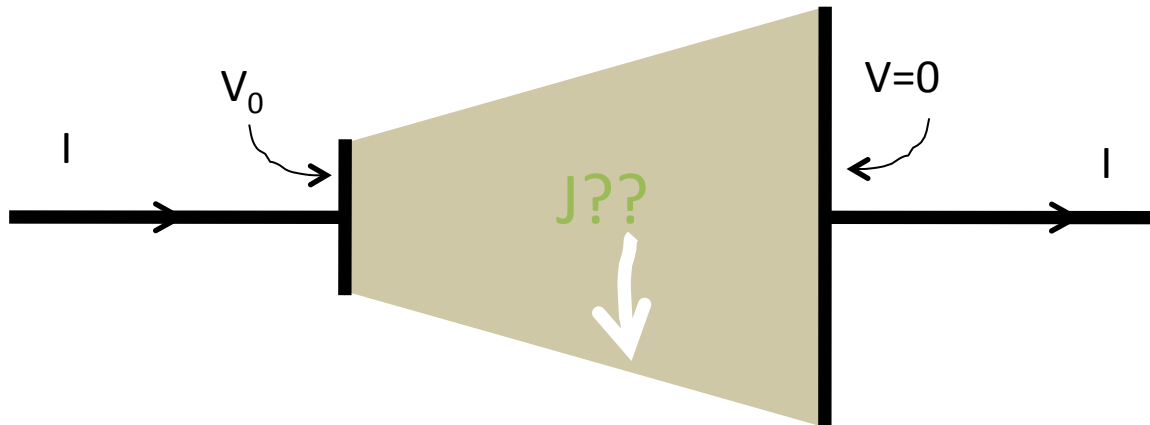
D) $\dfrac{\mu_0}{8\pi\ s}I$

E) None of these

S

I

I

(What direction does it point?)

Points into the page

Inside this resistor setup, what can you conclude about the current density **J** near the side walls?

V_0

$V=0$

I

I

J??

A) Must be exactly parallel to the wall

B) Must be exactly perpendicular to the wall

C) Could have a mix of parallel and perp components

D) No obvious way to decide!?

Inside this resistor setup, (real world, finite sizes!)
what does the E field look like *inside* ?

V_0 V=0

I   E??   I

A) Must be uniform and horizontal

B) Must have *some* nonuniformity, due to fringing effects!

The question should also state that the conductivity inside the resistor is uniform. If the conductivity is nonuniform, the E-field can also be non-uniform, although this has nothing to do with fringing effects.