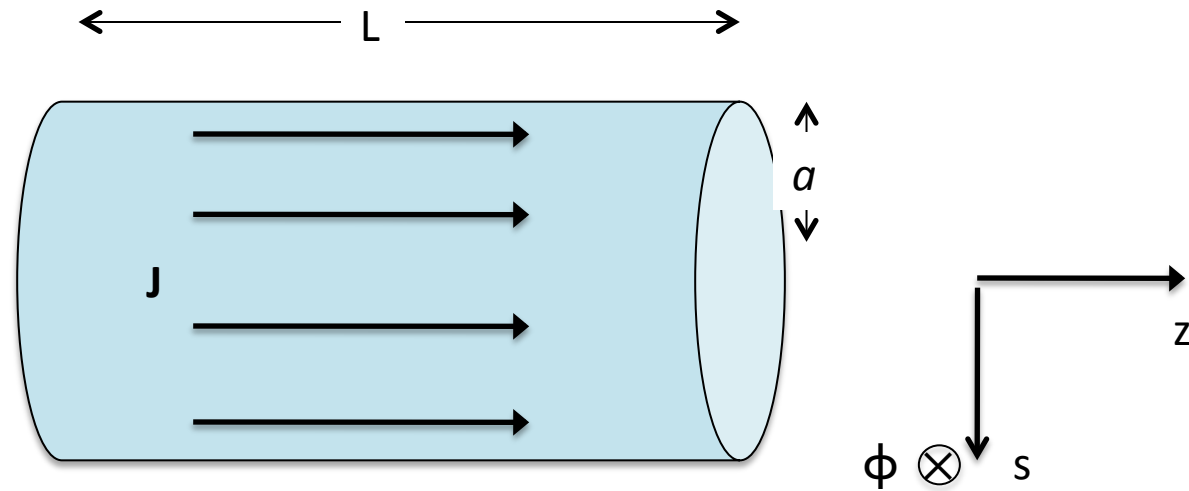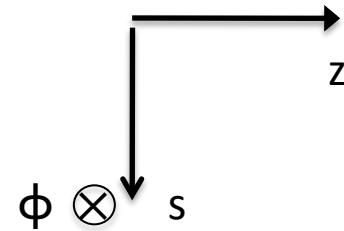Consider a current I flowing through a cylindrical resistor of length L and radius *a* with voltage V applied. What is the E field inside the resistor?

A. (V/*a*) z-hat
B. (V/*a*) ɸ-hat
C. (V/*a*) s-hat
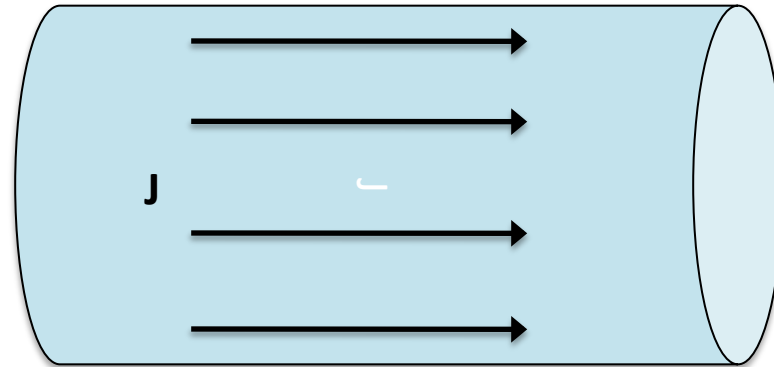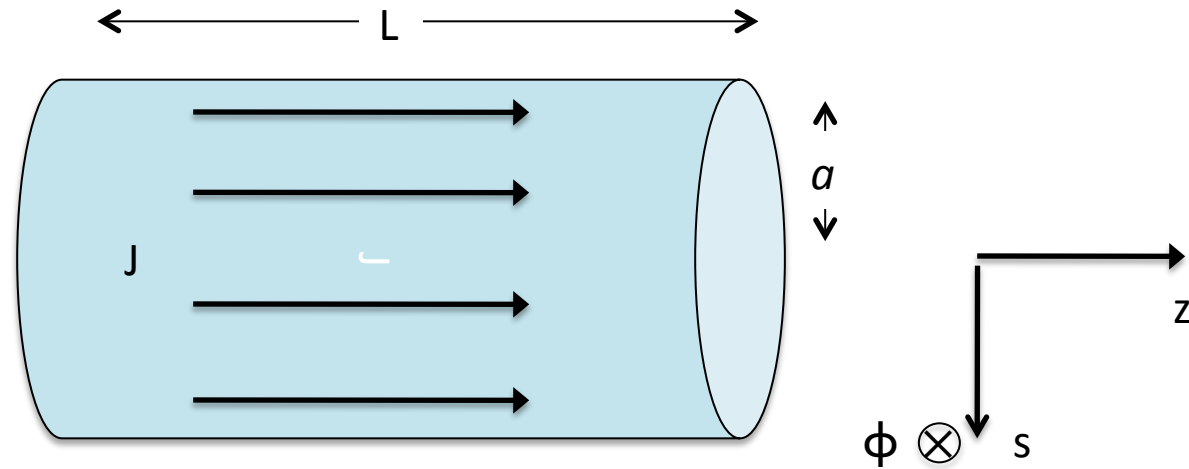D. (Vs/*a*²) z-hat
E. None of the above

Consider a current I flowing through a cylindrical resistor of length L and radius a with voltage V applied. **What is the B field inside the resistor?**

A. $(I\mu_0/2\pi s)$ φ-hat

B. $(I\mu_0 s/2\pi a^2)$ φ-hat

C. $(I\mu_0/2\pi a)$ φ-hat

D. $-(I\mu_0/2\pi a)$ φ-hat

E. None of the above

Consider a current I flowing through a cylindrical resistor of length L and radius a with voltage V applied.

What is the direction of the **S** vector on the outer curved surface of the resistor?

A. $\pm\phi$-hat

B. $\pm$ s-hat

C. $\pm$ z-hat

D. ???

And, is it + or -?