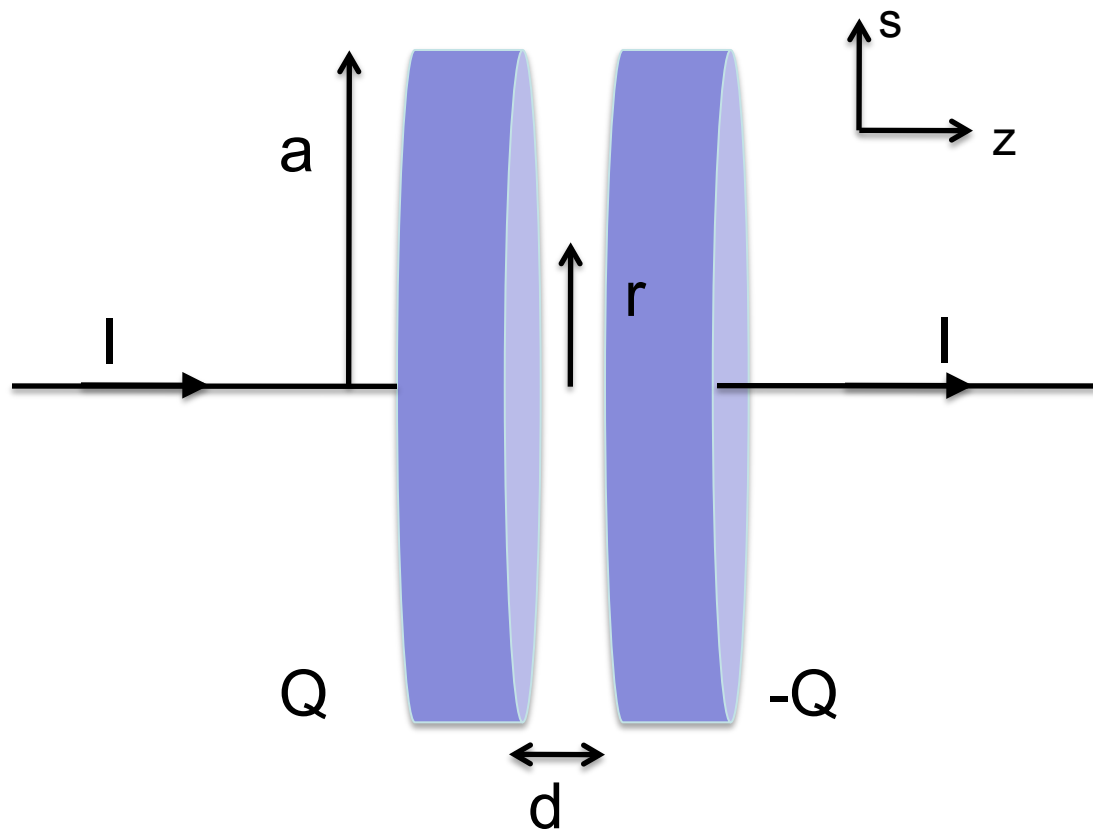
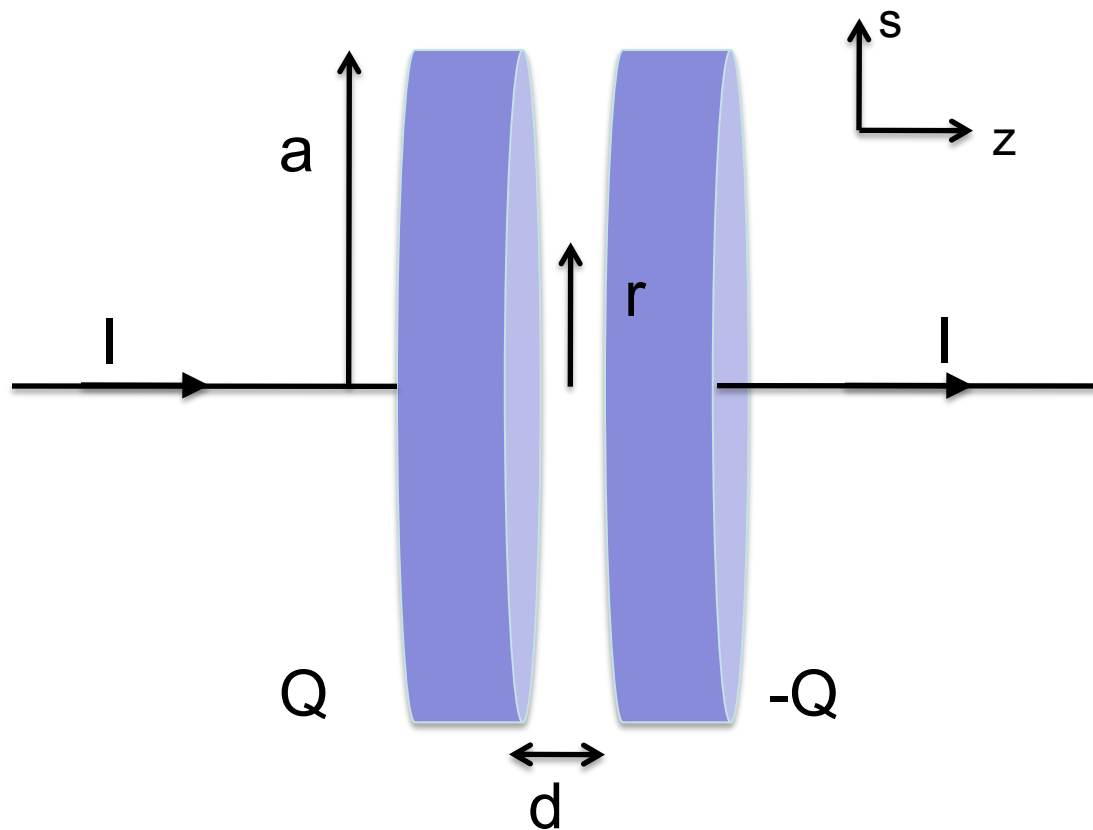


Consider a large parallel plate capacitor as shown, charging so that  $Q = Q_0 + \beta t$  on the positively charged plate. Assuming the edges of the capacitor and the wire connections to the plates can be ignored, what is the magnitude of the magnetic field  $B$  halfway between the plates, at a radius  $r$ ?



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- A.  $\frac{\mu_0 \beta}{2\pi r}$
- B.  $\frac{\mu_0 \beta r}{2d^2}$
- C.  $\frac{\mu_0 \beta d}{2a^2}$
- D.  $\frac{\mu_0 \beta a}{2\pi r^2}$

E. None of the above