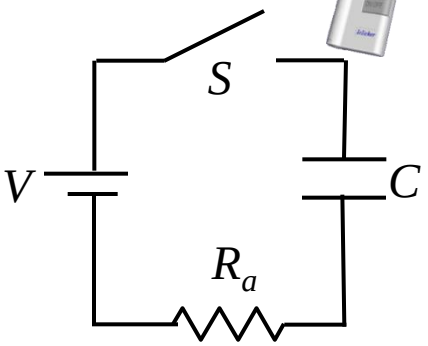
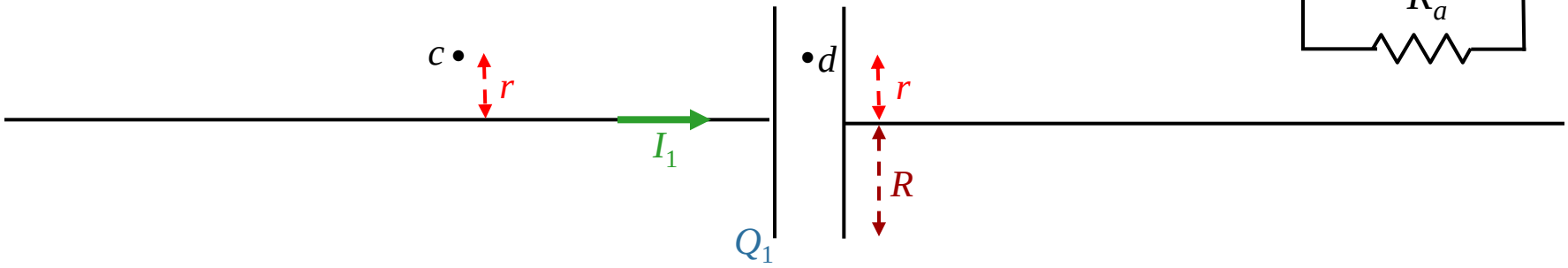
Calculation

Switch S has been open a long time when at $t = 0$, it is closed. Capacitor C has circular plates of radius R. At time $t = t_1$, a current I_1 flows in the circuit and the capacitor carries charge Q_1.



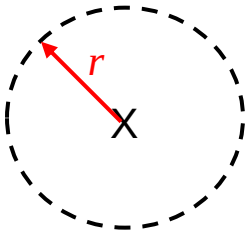


Compare the magnitudes of the B fields at points c and d.

A) $B_c < B_d$ B) $B_c = B_d$ C) $B_c > B_d$

What is the difference?
Apply (modified) Ampere's Law

point c:
$I(\text{enclosed}) = I_1$



point d:
$I_D(\text{enclosed}) < I_1$