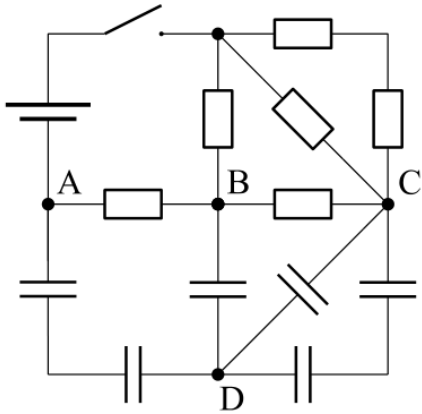
3. RESISTORS AND CAPACITORS (5 points) — *Mihkel Heidelberg.*



A circuit is made out of a battery, a switch, resistors and capacitors as shown in the image. The resistors all have a resistance of R, the capacitors all have a capacitance of C and the battery has a voltage of U. The point A is connected to the ground and so it has a potential of 0 V. In the beginning the switch is open and all the capacitors have no charge.

i) *(2 points)* What is the potential at points B and C after we have closed the switch and waited for all the potentials to stabilize?

ii) *(3 points)* What is the potential at point D after we have closed the switch and waited for all the potentials to stabilize?