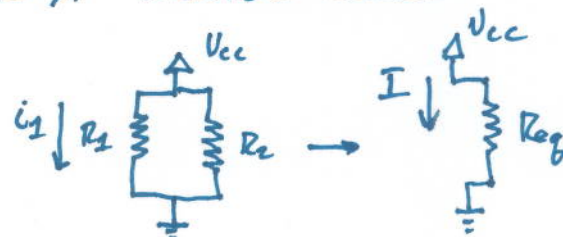


VOLTAGE DIVIDER EQUATION

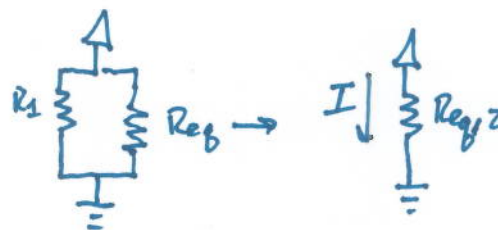
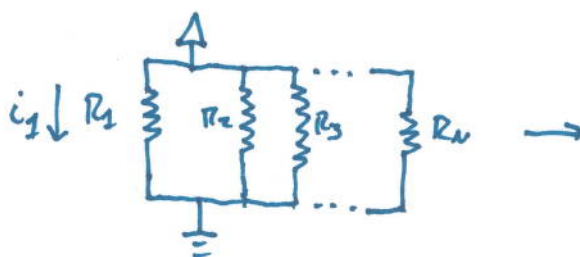
THE EQUATION GIVEN IN CLASS FOR A VOLTAGE DIVIDER WAS INCORRECT.

$$\textcircled{1} \quad \cancel{i_1 = I \frac{R_1}{R_1 + R_2}}$$



FOR HIGH VALUES OF  $R_1$ , RELATIVE TO  $R_2$ , IT DOES NOT LOGICALLY FOLLOW THAT MORE ELECTRONS WOULD GO DOWN THE RESISTOR WITH A HIGHER RESISTANCE (i.e.  $R_1$ ) AS EQN 1 SUGGESTS.

THE CORRECT WAY TO SOLVE A CURRENT DIVIDER IS:



$$i_1 = I \frac{R_{eq}}{R_1 + R_{eq}}$$