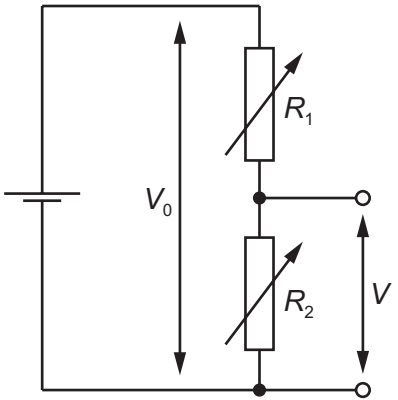
36 A potential divider circuit consists of a cell of negligible internal resistance in series with two variable resistors of resistances R_1 and R_2. The potential difference (p.d.) across the cell is V_0. The p.d. at the output is V.



Which statement is correct?

A When R_1 increases, it takes a greater proportion of V_0, so V decreases.

B When R_1 increases, the current through R_1 and R_2 decreases, so V increases.

C When R_2 decreases, it takes a smaller proportion of V_0, so V increases.

D When R_2 increases, the current through R_1 and R_2 decreases, so V decreases.