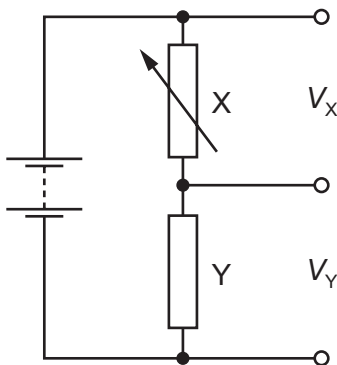


- 36** A potential divider circuit is constructed with one variable resistor X and one fixed resistor Y, as shown.



The potential difference across resistor X is  $V_X$  and the potential difference of resistor Y is  $V_Y$ .

As the resistance of X is increased, what happens to  $V_X$  and to  $V_Y$ ?

	$V_X$	$V_Y$
<b>A</b>	falls	rises
<b>B</b>	falls	stays the same
<b>C</b>	rises	falls
<b>D</b>	rises	stays the same

- 37** A cell of electromotive force  $\epsilon$  (e.m.f.)  $E$  and negligible internal resistance is connected in