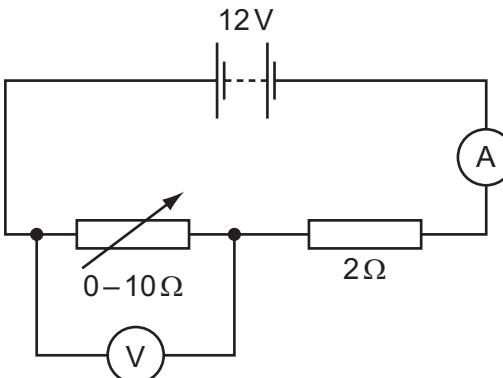
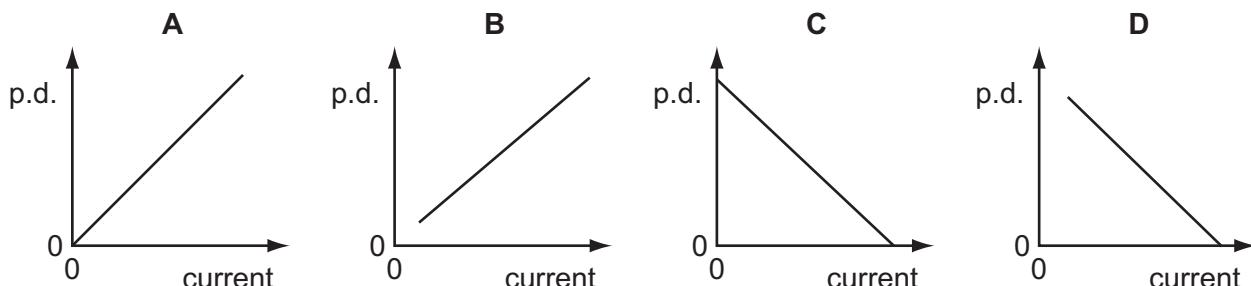


- 37 A 12V battery is in series with an ammeter, a 2Ω fixed resistor and a $0-10\Omega$ variable resistor. A high-resistance voltmeter is connected across the variable resistor.



The resistance of the variable resistor is changed from zero to its maximum value.

Which graph shows how the potential difference (p.d.) measured by the voltmeter varies with the current measured by the ammeter?



- 38 A nickel nucleus ^{59}Ni can be transformed by a process termed K capture. In this process the