

3 A galvanometer of resistance 5Ω is to be used in a null method.

In order to protect the galvanometer from damage due to an excessive initial current, resistors of resistance 0.5Ω and $1\text{k}\Omega$ are available.

Which arrangement would provide this protection?

- A** the 0.5Ω resistor in series with the galvanometer
- B** the 0.5Ω resistor in parallel with the galvanometer and this combination placed in series with the $1\text{k}\Omega$ resistor
- C** the $1\text{k}\Omega$ resistor in parallel with the galvanometer
- D** the $1\text{k}\Omega$ resistor in parallel with the galvanometer and this combination placed in series with the 0.5Ω resistor