

- 28 Interference fringes of separation x are observed on a screen at a distance of 1.00 m from a double slit that is illuminated by yellow light of wavelength 600 nm.

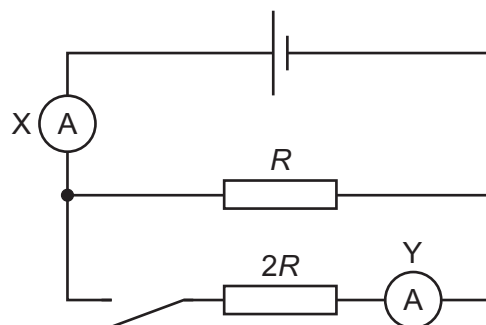
At which distance from the double slit would interference fringes of the same separation x be observed when using blue light of wavelength 400 nm?

- A** 0.33 m **B** 0.67 m **C** 0.75 m **D** 1.50 m

- 29 What is the definition of potential difference across a component?

- A** energy transferred per unit charge
B energy transferred per unit current
C energy transferred per unit distance
D energy transferred per unit time

- 30 The diagram shows a cell of negligible internal resistance connected to a switch and two resistors of resistances R and $2R$.



The circuit also contains two ammeters X and Y.

The reading on X is 4.0 A when the switch is open.

What are the readings on X and Y after the switch is closed?

	reading on X/A	reading on Y/A
A	4.0	1.3
B	4.0	2.7
C	6.0	2.0
D	6.0	4.0