

2 A student varied the power of a filament bulb to investigate the light emitted by the bulb.

- (a) The student built a circuit to vary the power of the bulb. The student used an ammeter and voltmeter to determine the power of the bulb.

Draw a circuit diagram that the student could have used.

(2)

- (b) The student shone the light from the bulb onto a light dependent resistor (LDR). The student measured the resistance of the LDR using an ohmmeter.

The student plotted a graph of the resistance of the LDR against the power of the bulb.

Describe how the student could have obtained the set of data required to plot the graph. Your description should include how to ensure that the data is accurate.

(4)



- (c) The LDR is connected to the ohmmeter using two connecting wires. The ohmmeter reading includes the resistance of the two connecting wires.

State why the student does not need to correct this reading.

(1)

(Total for Question 2 = 7 marks)