

Int 2 Electricity Quiz

Qu 1

The atom

Name the three particles which make up the atom.

What is the charge on each particle?

Qu 2

Electrical Charge

What is the symbol for electrical charge?

Qu 3

Electrical Charge

Charge is measured in what units?

The abbreviation for the unit is

Qu 4

Electrical Charge

How does the charge on an electron compare with the charge on a proton?

Qu 5

**In which direction do electrons
move round a circuit?**

Qu 6

Conductors & Insulators

What makes something a good conductor?

Name three conductors:

Name three insulators:

Qu 7

Charge, Current & Time

Electric current is given the symbol

It is measured in

Qu 8

Charge, Current & Time

What is meant by a current of 1A?

Write down a formula which links charge, current and time. Label with correct units.

Qu 9

Charge, Current & Time

Rearrange the formula in terms of

current =

charge =

time =

Qu 10

Draw the component

Fuse

Ammeter

Battery

Resistor

Switch

Lamp

Voltmeter

Variable resistor

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Qu 11

Drawing a circuit diagram

Draw a circuit diagram of a series circuit which contains a battery, two resistors and a lamp.

Include in your circuit a meter which is used for measuring current and a meter used to measure the voltage across the lamp.

Qu 12

Series Circuits and Current

What can you say about the current in a series circuit?

Qu 13

Parallel Circuits and Current

What can you say about the current in a parallel circuit?

Qu 14

Series Circuits and Voltage

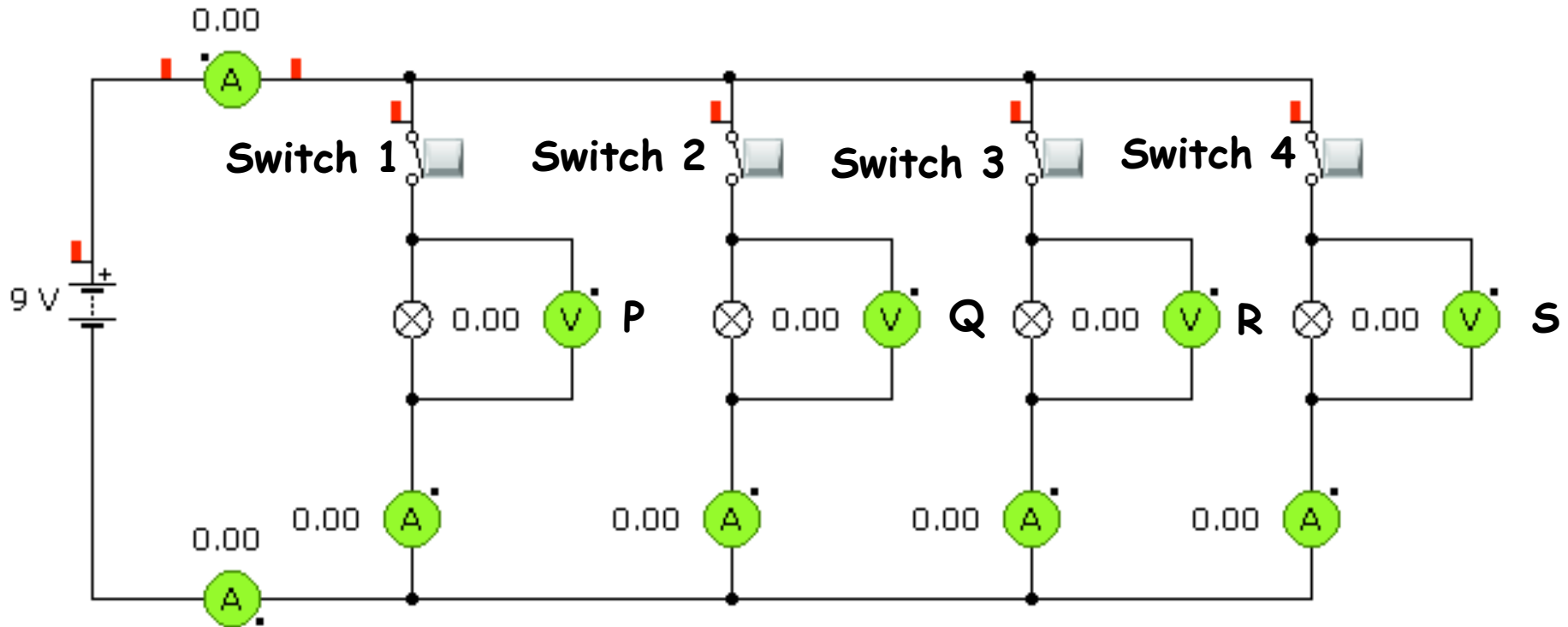
What can you say about the voltage in a series circuit?

Qu 15

Parallel Circuits and Voltage

What can you say about the voltage in a parallel circuit?

Qu 16



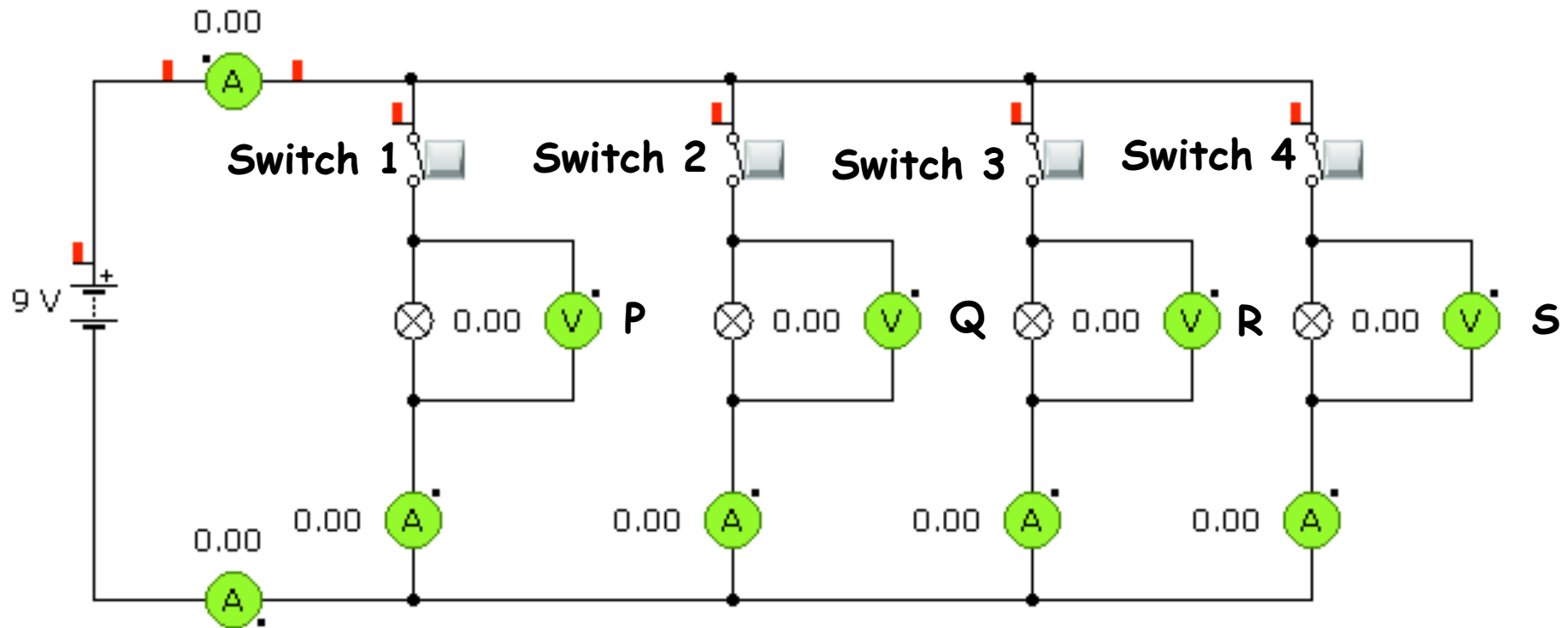
Write down:

The voltage on voltmeter P when switch 1 is closed.

The voltage on voltmeter P, Q and R when switch 1 is open, and switch 2 and 3 are closed.

The voltage on voltmeter S when all four switches are closed.

Qu 17



Switch 1 is closed.

Switch 2-4 are then closed.

What will you notice about the brightness of the bulbs as more switches are closed?

Qu 18

Resistance

What are the units of resistance?

Complete the sentences:

As resistance increases, current

As resistance decreases, current

Qu 19

Resistance

Draw a circuit diagram for an experiment which can be used to investigate the relationship between voltage across a resistor and current through a resistor.

Draw the graph from this experiment.

Qu 20

Resistance

$$V = IR$$

Rearrange the equation in terms of I, and R.

I =

R =

Write down the quantity for each symbol in the equation and the units.

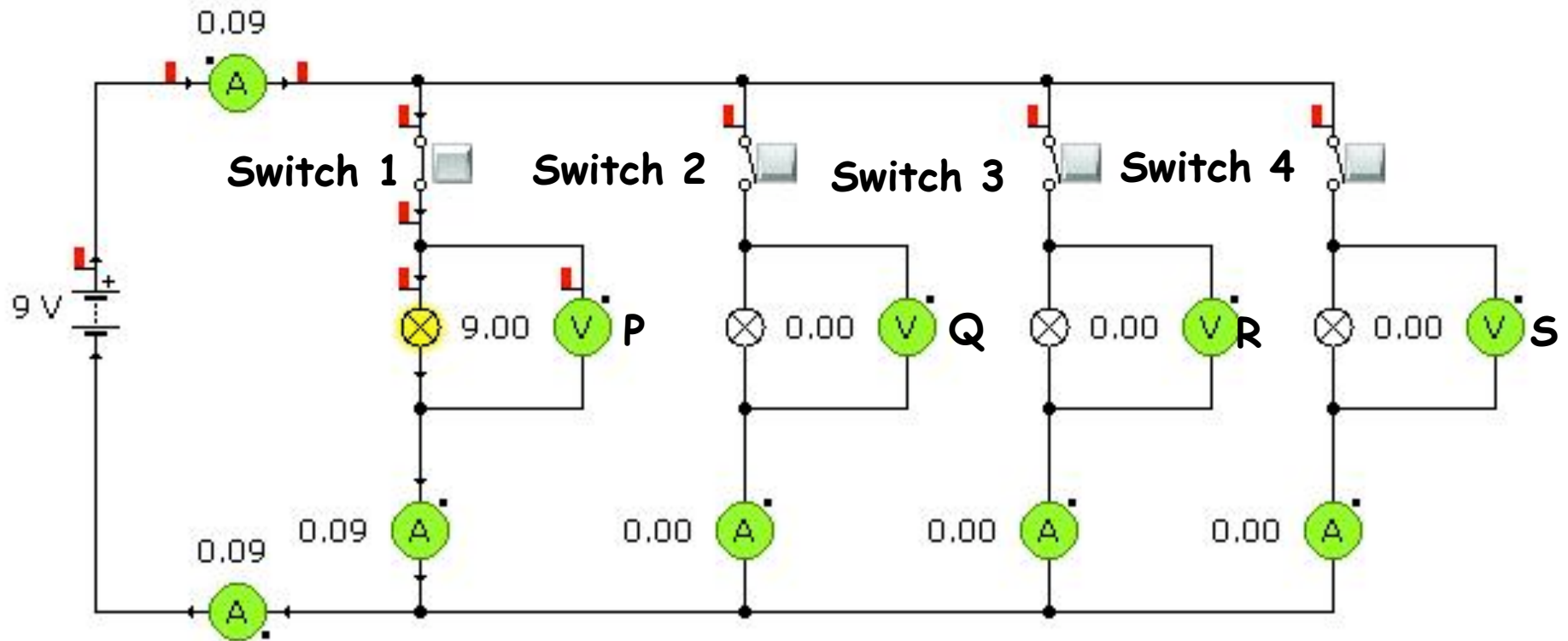
e.g. V is voltage measured in volts

End of quiz

Review - what do you know and understand?

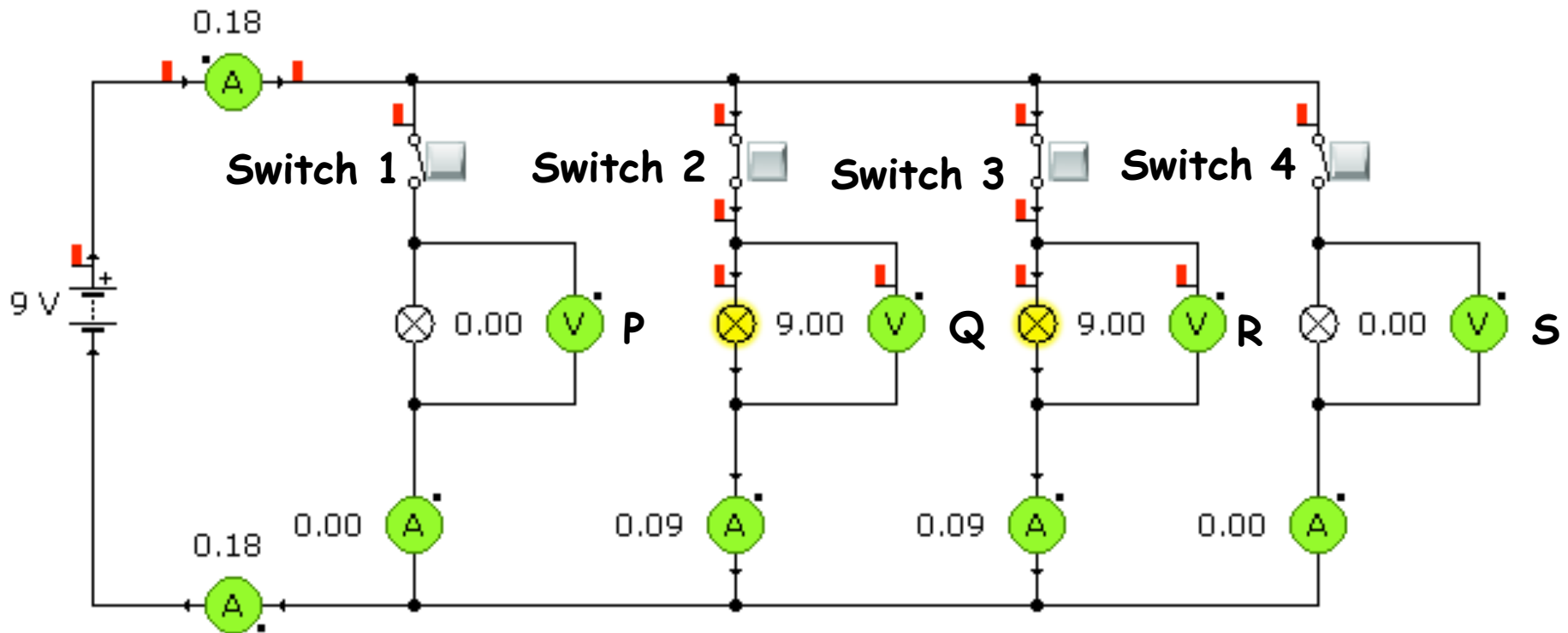
What do you need to review and revise?

Qu 16



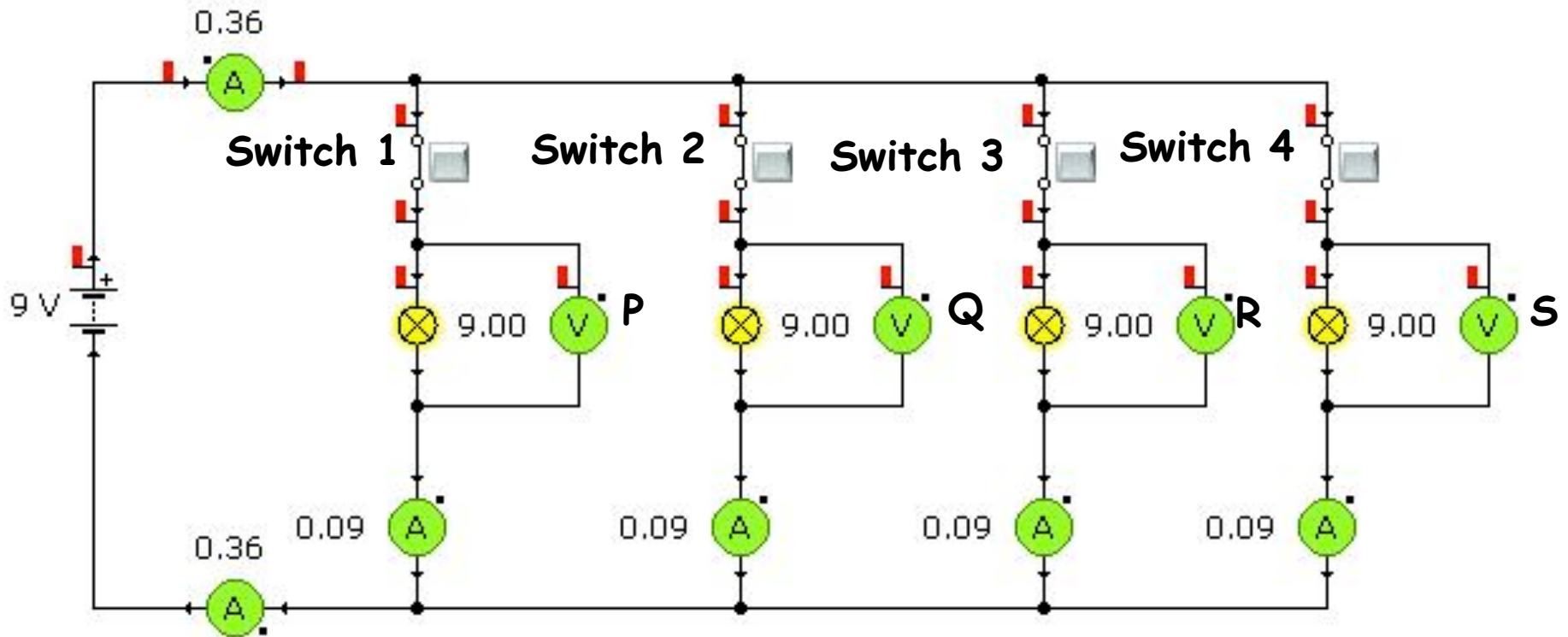
The voltage on voltmeter P when switch 1 is closed.

Qu 16



The voltage on voltmeter P, Q and R when switch 1 is open, and switch 2 and 3 are closed.

Qu 16



The voltage on voltmeter *S* when all four switches are closed.

Note that the bulbs are equally bright.