

## Progress Test Lesson 1 to 4 - QUESTIONS

Q 1 Complete the tables below.

Voltage (E)	Current (I)	Resistance (R)	Power
12 V	1 mA		
120 V		7 K $\Omega$	
		20 $\Omega$	10 W
	6 A		100 W
60 V		1 K $\Omega$	

Q2 Is a pico farad larger in number than a nanofarad? Explain your answer.

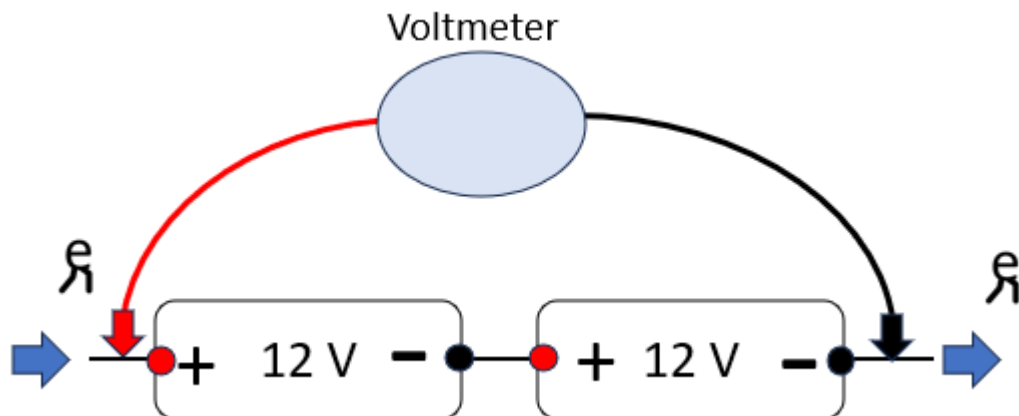
Q3 What is electrical energy as opposed to electrical power?

Q4 What is the voltage in a circuit if the energy is 7 Joules and the charge is 10 Coulombs?

Q5 What current is flowing in a circuit if 10 Q passes a point in 5 seconds?

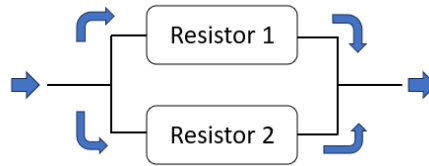
Q6 Describe the difference between conventional current flow and electron flow.

Q7 What power is dissipated in a circuit if 20 joules are expended in 5 seconds?



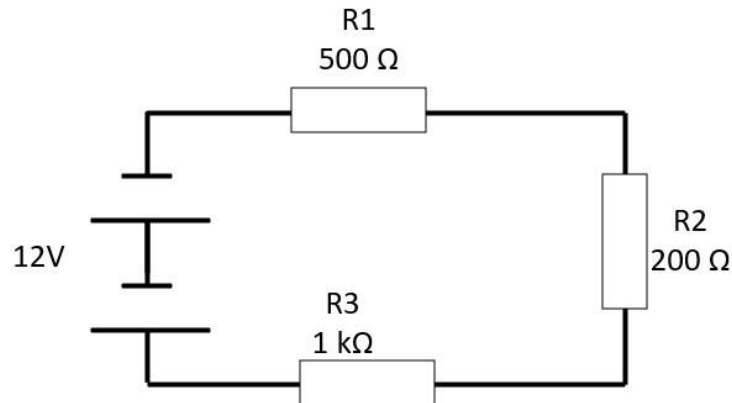
Q8 What is the voltage on the voltmeter?

Q9 If resistor 1 is 150 ohms and resistor 2 is 570 ohms, what is the total resistance?



Q10 What are the colour bands for a 330 ohm resistor with 5% tolerance?

Q11 Complete the table for the figure below.



I	V R1	V R2	V R3	V R1 + R2 + R3

Q12 If a resistor is rated at  $\frac{1}{4}$  W, what does this mean?

Q13 What is the resistance of a circuit with 2 A flowing and an EMF of 16 V?

Q14 Draw four resistors, 10 Ω 15 Ω 100 Ω and 90 Ω in series and calculate the total resistance.

Q15 Draw four resistors, 10 Ω 15 Ω 100 Ω and 90 Ω in parallel and calculate the total resistance.