

Science In Action 9 - Numerical Response Questions - Electrical Principles & Technologies

1. A motor has an internal resistance of **40 Ω**.
The motor is in a circuit with a current of **4.0 A**

What is the voltage?

	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

3. Match the form with its description

There are four common forms of energy:

- 1 - Chemical
- 2 - Electrical
- 3 - Mechanical
- 4 - Thermal

stored charged moving kinetic

	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

2. A current of **625 mA** runs through a bulb that is connected to **120V**.

What is the resistance of the bulb?

	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

4. There are many different alternative energy sources including:

- 1 – Tidal
- 2 – Wind
- 3 – Solar
- 4 – Waterfall

Match the Type of alternative energy you would most likely find in each region.

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	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9