

Module 06 Baseline Quiz

Read sections 10.1 - 10.6

1. The 'loop rule' is
 - a) One of Kirchhoff's rules that involves potential differences
 - b) A rule that is used in addition to Kirchhoff's rules for circuits containing loops of wire
 - c) A rule that can't be used for circuits with capacitors
 - d) One of Kirchhoff's rules that involves currents
 - e) None of the above.
2. The 'junction rule' is
 - a) One of Kirchhoff's rules that involves currents
 - b) A rule that is used in addition to Kirchhoff's rules for circuits containing junctions of wire
 - c) A rule that can't be used for circuits with capacitors
 - d) One of Kirchhoff's rules that involves potential differences
 - e) None of the above.
3. A 1.0Ω and 2.0Ω resistor are connected in series to a 12V power supply. Then a third resistor is connected in parallel with the 2Ω resistor. What will happen to the current through the power supply after the third resistor is connected?
 - a) It will decrease
 - b) It will stay the same
 - c) It will increase
 - d) It depends on the resistance of the third resistor
 - e) None of the above.
4. When applying Kirchhoff's loop rule, if we travel through a resistor in the direction of current, will we add or subtract the potential across the resistor?
 - a) Add
 - b) Subtract
 - c) It depends on the EMF it is connected to.
 - d) None of the above.

5. What does EMF stand for?
 - a) Electromagnetic Force
 - b) Electromotive Force
 - c) Electricity-Magnatism-Friction
 - d) Electromotive Friction
 - e) None of the above.
6. When applying Kirchhoff's loop rule, if we travel through a resistor in the opposite direction of current, will we add or subtract the potential across the resistor?
 - a) Add
 - b) Subtract
 - c) It depends on the EMF it is connected too.
 - d) None of the above.
7. When applying Kirchhoff's loop rule, if we travel through an EMF from the negative terminal to the positive terminal, will we add or subtract the potential difference across the EMF?
 - a) Add
 - b) Subtract
 - c) It depends how many resistors are connected to the EMF.
 - d) None of the above.
8. If a 1Ω resistor is connected in *series* with a 2Ω resistor, what will the effective resistance be?
 - a) Greater than 2Ω
 - b) Less than 1Ω
 - c) Between 1Ω and 2Ω
 - d) More information is needed.
 - e) None of the above.
9. If a 1Ω resistor is connected in *parallel* with a 2Ω resistor, what will the effective resistance be?
 - a) Greater than 2Ω
 - b) Less than 1Ω
 - c) Between 1Ω and 2Ω
 - d) More information is needed.
 - e) None of the above.