Shock Value Practice Test

Section one: Circuit Analysis (round answers and numbers to the nearest hundredth)

Below each circuit diagram are questions about that circuit.

R1: 3 ohms

R3: 8 ohms

R2: 4 ohms

15 volts total

1. What is the current across resistor 2?
2. What is the current across resistor 1?
3. What is the current across resistor 3?
4. What is the total resistance?
5. What is the voltage across resistor 3?
6. What is the voltage across resistor 2?
7. What is the voltage across resistor 1?
8. What is the total amount of watts?
9. What is the amount of watts across resistor 1?
10. What is the amount of watts across resistor 2?
11. What is the amount of watts across resistor 3?
12. What is the total current?

R2: 2 ohms

R1: 8 ohms

10 volts

R3: 10 ohms

1. What is the amount of volts across resistor 1?

14. What is the amount of volts across resistor 2?

1. What is the amount of volts across resistor 3?
2. What is the amount of amps across resistor 1?
3. What is the amount of amps across resistor 2?
4. What is the amount of amps across resistor 3?
5. What is the total amount of amps?
6. What is the total resistance?
7. What is the total amount of watts?
8. What is the amount of watts across resistor 1?
9. What is the amount of watts across resistor 2?
10. What is the amount of watts across resistor 3?
11. What is the resistance across the wire?
12. What is the voltage across the wire?
13. What is the current across the wire?
14. What is the power rating of the electricity flowing through the wire?

R1: 5 0hms

R2

Total current: 5 amps

R6: 25 ohms

R4: 17 ohms

R3: 15 ohms

B1: 10 volts

S1

B2: 20 volts

1. What is S1?
2. What is R1?
3. What is R2?
4. What is the current across R1?
5. What is the current across R2?
6. What is the current across R3?
7. What is the current across R4?
8. What is the current across R5?
9. What is the current across R5//R4?
10. What is the resistance of R2?
11. What is the total resistance?
12. What is the amount of watts across R1?
13. What is the amount of watts across R2?
14. What is the amount of watts across R3?
15. What is the amount of watts across R4?
16. What is the amount of watts across R5?
17. What is the total amount of watts?

For the following questions, assume that S1 is in a position that causes electricity to come from B2.

46. What is the current across R1?

1. What is the current across R2?
2. What is the current across R3?
3. What is the current across R4?
4. What is the current across R5?
5. What is the current across R5//R4
6. What is the resistance of R2?
7. What is the total resistance?
8. What is the amount of watts across R1?
9. What is the amount of watts across R2?
10. What is the amount of watts across R3?
11. What is the amount of watts across R4?
12. What is the amount of watts across R5?
13. What is the total amount of watt?