**Practice for 19.1:**

**Round your answers to three sig figs (retain five), and show your work.**

**1**

24 V

11 Ω

8.7 Ω

9.2 Ω

3.7 Ω

|  |  |  |
| --- | --- | --- |
| A1 (0.736 A) | A2 (0.736 A) | V1 (2.72 V) |
| V2 (13.2 V) | V3 (6.77 V) | Least power dissipated by a resistor: (the 3.7 ohm: 2.01 W) |

32.0 V

11

Ω

17 Ω

13 Ω

|  |  |  |  |
| --- | --- | --- | --- |
| A1 (4.79 A) | A2 (2.91 A) | A3 (2.91 A) | Greatest power dissipated by a resistor  (the 11 ohm: 93.1 W) |

**2**

41.0 V

5.8 Ω

2.8 Ω

6.7 Ω

4.7 Ω

|  |  |  |
| --- | --- | --- |
| A1 (2.05 A) | A2 (2.05 A) | V1 (11.9 V) |
| V2 (9.64 V) | V3 (0.00 V) | Greatest power dissipated by a resistor: (the 6.7 ohm: 28.2 W) |

53.0 V

25 Ω

19 Ω

37 Ω

|  |  |  |  |
| --- | --- | --- | --- |
| A1 (1.43 A) | A2 (4.91 A) | A3 (2.12 A) | Least power dissipated by a resistor  (the 37 ohm: 75.9 W) |

**3**

13.0V

2.3 Ω

1.7 Ω

2.9 Ω

1.2 Ω

|  |  |  |
| --- | --- | --- |
| A1 (1.60 A) | A2 (1.60 A) | V1 (1.93 V) |
| V2 (3.69 V) | V3 (7.38 V) | Least power dissipated by a resistor: (the 1.2 ohm: 3.09 W) |

34.0 V

17 Ω

13 Ω

15 Ω

|  |  |  |  |
| --- | --- | --- | --- |
| A1 (4.62 A) | A2 (4.62 A) | A3 (2.00 A) | Greatest power dissipated by a resistor  (the 13 ohm: 88.9 W) |

**4**

33.0 V

2.2 Ω

4.4 Ω

4.1 Ω

4.8 Ω

|  |  |  |
| --- | --- | --- |
| A1 (2.13 A) | A2 (2.13 A) | V1 (14.1 V) |
| V2 (18.9 V) | V3 (10.2 V) | Greatest power dissipated by a resistor:  (the 4.8 ohm: 21.8 W) |

78 V

17Ω

29Ω

23 Ω

|  |  |  |  |
| --- | --- | --- | --- |
| A1 (10.7 A) | A2 (10.7 A) | A3 (7.28 A) | Least power dissipated by a resistor  (the 29 ohm: 210. W) |

**5**

34.0 V

1.3 Ω

6.9 Ω

8.6 Ω

4.2 Ω

|  |  |  |
| --- | --- | --- |
| A1 (1.62 A) | A2 (1.62 A) | V1 (2.10 V) |
| V2 (31.9 V) | V3 (11.2 V) | Least power dissipated by a resistor: (the 1.3 ohm: 3.41 W) |

73.0 V

13 Ω

17 Ω

29 Ω

|  |  |  |  |
| --- | --- | --- | --- |
| A1 (12.4 A) | A2 (8.13 A) | A3 (8.13 A) | Greatest power dissipated by a resistor  (the 13 ohm: 410. W) |