Practice for 19.3 - Kirchhoff's Laws!!!!!

1

7 Ω

3 Ω

11 Ω

23.0 V

14 Ω

8 Ω

9 Ω

5 Ω

17.0 V

Find the current and direction (up or down) through:

11 Ω (0.515 A, up)

14 Ω (0.172 A, up)

8 Ω (0.687 A, down)

Find the voltage across:

7 Ω (3.60 V)

3 Ω (2.06 V)

Find power dissipated by:

9 Ω (4.24 W)

5 Ω (0.148 W)

Find:

|V1| = (6.86 V)

2

6 Ω

13 Ω

17.0 V

5 Ω

24.0 V

7 Ω

11 Ω

10 Ω

8 Ω

Find the current and direction (up or down) through:

5 Ω (0.949 A, up)

7 Ω (0.0814 A, down)

11 Ω (0.868 A, down)

Find the voltage across:

13 Ω (12.3 V)

10 Ω (8.68 V)

Find power dissipated by:

8 Ω (0.0530 W)

6 Ω (5.40 W)

Find:

|V1| = (11.0 V)

 3

7 Ω

4 Ω

36.0 V

3 Ω

18.0 V

9 Ω

6 Ω

5 Ω

8 Ω

Find the current and direction (up, down) through:

3 Ω (0.523 A up)

9 Ω (1.27 A up)

6 Ω (1.80 A down)

Find the voltage across:

4 Ω (2.09 V)

7 Ω (12.6 V)

Find power dissipated by:

8 Ω (13.0 W)

5 Ω (16.1 W)

Find:

|V1| = (9.90 V)

 4

13 Ω

9 Ω

67.0 V

12 Ω

45.0 V

15 Ω

10 Ω

11 Ω

14 Ω

Find the current and direction (up, down, left, right) through:

12 Ω (0.304 A down)

15 Ω (1.29 A up)

10 Ω (0.986 A down)

Find the voltage across:

11 Ω (10.8 V)

14 Ω (18.1 V)

Find power dissipated by:

9 Ω (8.76 W)

13 Ω (1.20 W)

Find:

|V1| = (38.1 V)

 5

16 Ω

37.0 V

20 Ω

56.0 V

17 Ω

21 Ω

19 Ω

18 Ω

5 Ω

Find the current and direction (up, down, left, right) through:

21 Ω (0.649 A, up)

17 Ω (0.840 down)

5 Ω (0.190 A, up)

Find the voltage across:

20 Ω (13.0 V)

19 Ω (3.62 V)

Find power dissipated by:

16 Ω (0.580 W)

18 Ω (12.7 W)

Find:

|V1| = (18.7 V)