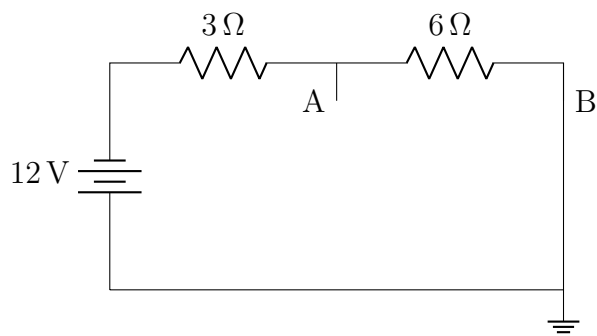


테브난등가초급문제 1 20

문제 1

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 12 \times \frac{6}{3+6} = 8 \text{ V}$$

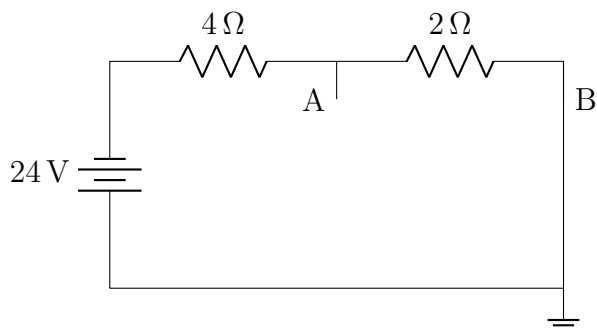
$$R_{th} = 3 + 6 = 9 \Omega$$

정답:

$$V_{th} = 8 \text{ V}, \quad R_{th} = 9 \Omega$$

문제 2

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 24 \times \frac{2}{4+2} = 8 \text{ V}$$

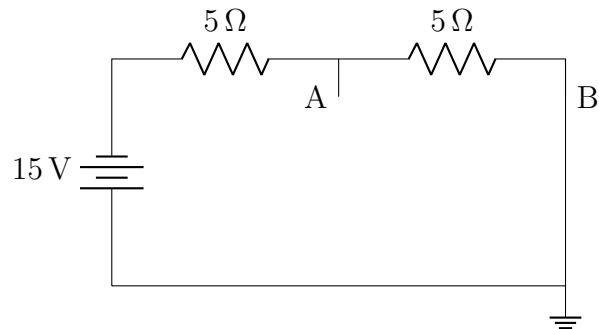
$$R_{th} = 4 + 2 = 6 \Omega$$

정답:

$$V_{th} = 8 \text{ V}, \quad R_{th} = 6 \Omega$$

문제 3

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 15 \times \frac{5}{5+5} = 7.5 \text{ V}$$

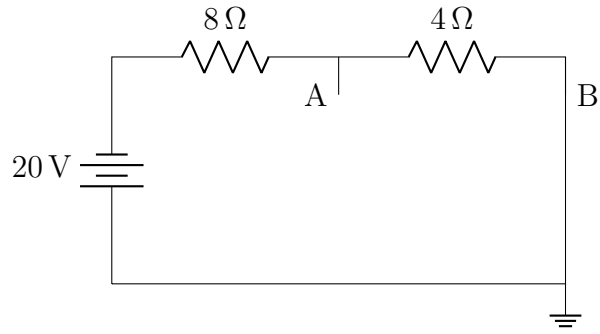
$$R_{th} = 5 + 5 = 10 \Omega$$

정답:

$$V_{th} = 7.5 \text{ V}, \quad R_{th} = 10 \Omega$$

문제 4

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 20 \times \frac{4}{8 + 4} = \frac{20 \times 4}{12} = 6.67 \text{ V}$$

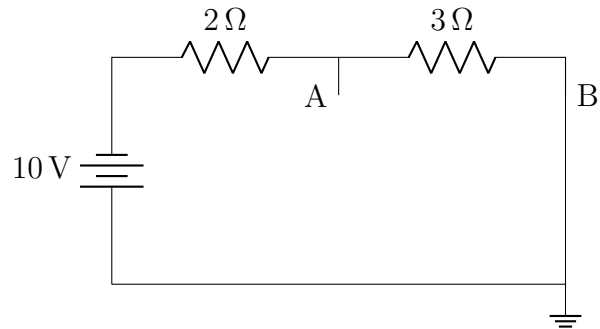
$$R_{th} = 8 + 4 = 12 \Omega$$

정답:

$$V_{th} = 6.67 \text{ V}, \quad R_{th} = 12 \Omega$$

문제 5

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 10 \times \frac{3}{2 + 3} = 6 \text{ V}$$

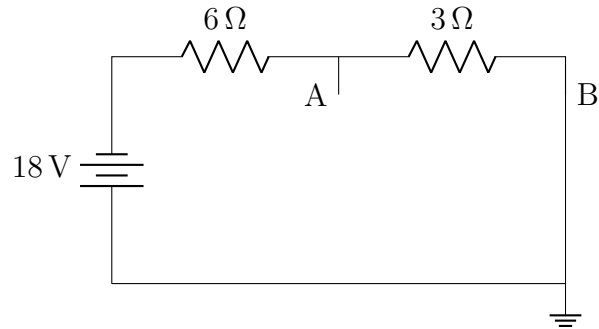
$$R_{th} = 2 + 3 = 5 \Omega$$

정답:

$$V_{th} = 6 \text{ V}, \quad R_{th} = 5 \Omega$$

문제 6

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 18 \times \frac{3}{6 + 3} = 6 \text{ V}$$

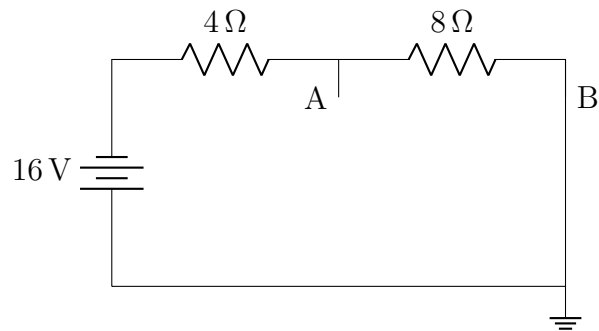
$$R_{th} = 6 + 3 = 9 \Omega$$

정답:

$$V_{th} = 6 \text{ V}, \quad R_{th} = 9 \Omega$$

문제 7

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 16 \times \frac{8}{4 + 8} = \frac{128}{12} = 10.67 \text{ V}$$

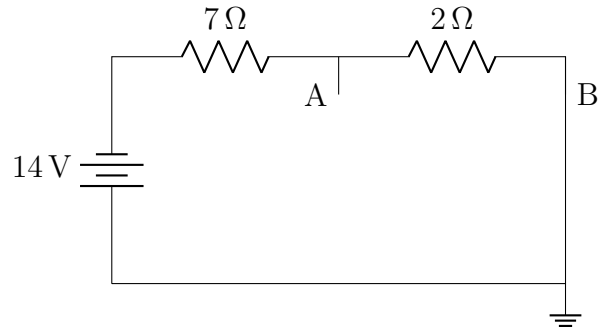
$$R_{th} = 4 + 8 = 12 \Omega$$

정답:

$$V_{th} = 10.67 \text{ V}, \quad R_{th} = 12 \Omega$$

문제 8

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 14 \times \frac{2}{7+2} = \frac{28}{9} \approx 3.11 \text{ V}$$

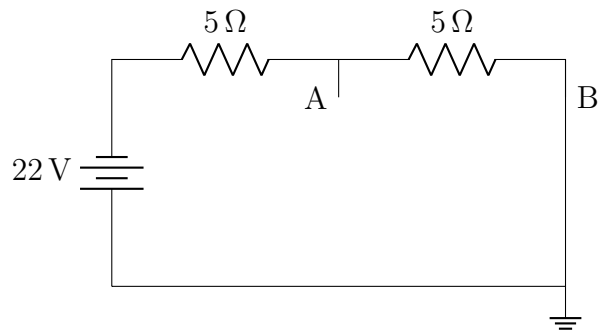
$$R_{th} = 7 + 2 = 9 \Omega$$

정답:

$$V_{th} \approx 3.11 \text{ V}, \quad R_{th} = 9 \Omega$$

문제 9

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 22 \times \frac{5}{5+5} = 11 \text{ V}$$

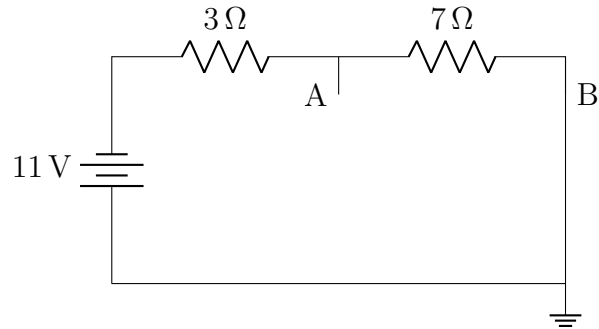
$$R_{th} = 5 + 5 = 10 \Omega$$

정답:

$$V_{th} = 11 \text{ V}, \quad R_{th} = 10 \Omega$$

문제 10

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 11 \times \frac{7}{3+7} = 7.7 \text{ V}$$

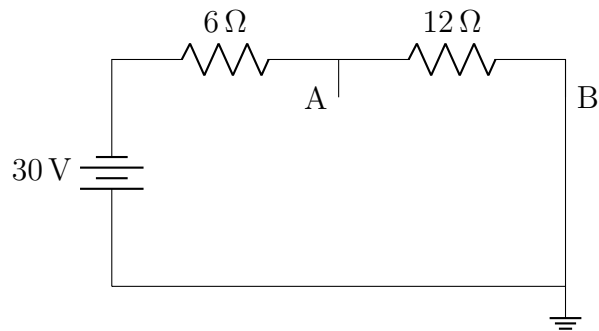
$$R_{th} = 3 + 7 = 10 \Omega$$

정답:

$$V_{th} = 7.7 \text{ V}, \quad R_{th} = 10 \Omega$$

문제 11

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 30 \times \frac{12}{6+12} = 20 \text{ V}$$

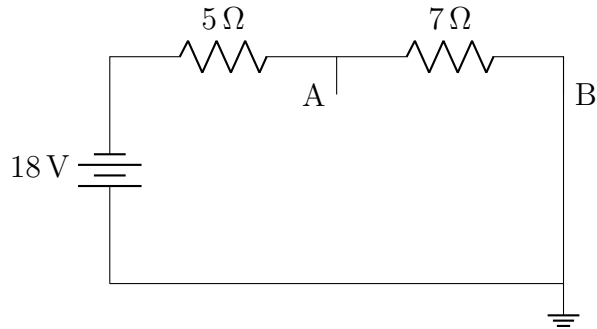
$$R_{th} = 6 + 12 = 18 \Omega$$

정답:

$$V_{th} = 20 \text{ V}, \quad R_{th} = 18 \Omega$$

문제 12

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 18 \times \frac{7}{5+7} = 10.5 \text{ V}$$

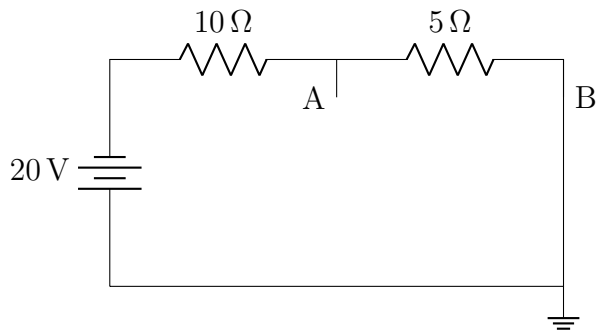
$$R_{th} = 5 + 7 = 12 \Omega$$

정답:

$$V_{th} = 10.5 \text{ V}, \quad R_{th} = 12 \Omega$$

문제 13

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 20 \times \frac{5}{10+5} = \frac{100}{15} \approx 6.67 \text{ V}$$

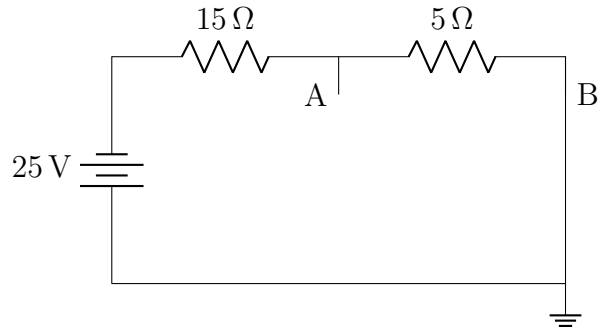
$$R_{th} = 10 + 5 = 15 \Omega$$

정답:

$$V_{th} \approx 6.67 \text{ V}, \quad R_{th} = 15 \Omega$$

문제 14

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 25 \times \frac{5}{15 + 5} = \frac{125}{20} = 6.25 \text{ V}$$

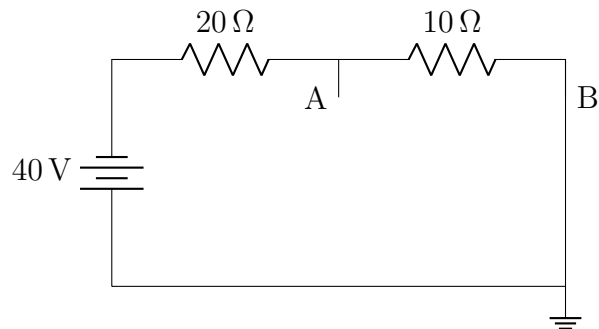
$$R_{th} = 15 + 5 = 20 \Omega$$

정답:

$$V_{th} = 6.25 \text{ V}, \quad R_{th} = 20 \Omega$$

문제 15

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 40 \times \frac{10}{20 + 10} = \frac{400}{30} \approx 13.33 \text{ V}$$

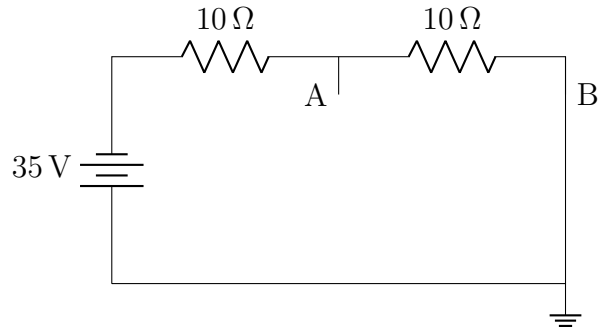
$$R_{th} = 20 + 10 = 30 \Omega$$

정답:

$$V_{th} \approx 13.33 \text{ V}, \quad R_{th} = 30 \Omega$$

문제 16

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 35 \times \frac{10}{10 + 10} = 17.5 \text{ V}$$

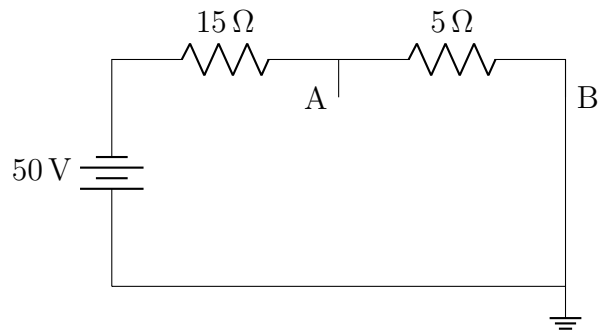
$$R_{th} = 10 + 10 = 20 \Omega$$

정답:

$$V_{th} = 17.5 \text{ V}, \quad R_{th} = 20 \Omega$$

문제 17

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 50 \times \frac{5}{15 + 5} = 12.5 \text{ V}$$

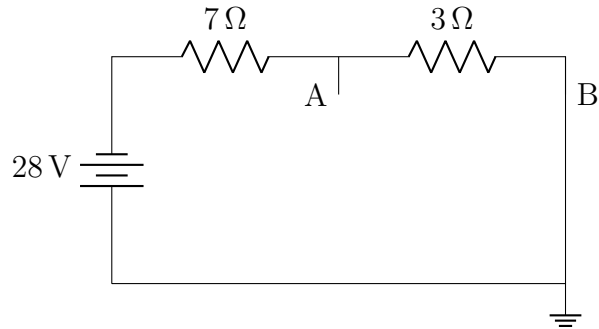
$$R_{th} = 15 + 5 = 20 \Omega$$

정답:

$$V_{th} = 12.5 \text{ V}, \quad R_{th} = 20 \Omega$$

문제 18

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 28 \times \frac{3}{7+3} = 8.4 \text{ V}$$

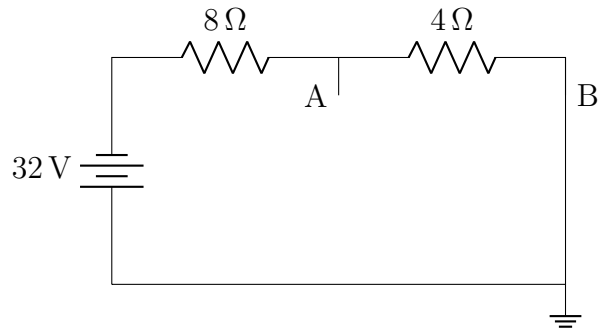
$$R_{th} = 7 + 3 = 10 \Omega$$

정답:

$$V_{th} = 8.4 \text{ V}, \quad R_{th} = 10 \Omega$$

문제 19

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 32 \times \frac{4}{8+4} = \frac{128}{12} = 10.67 \text{ V}$$

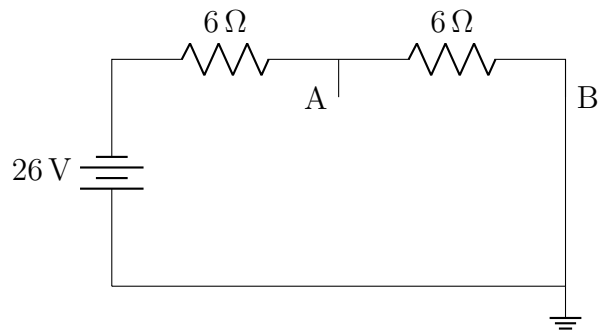
$$R_{th} = 8 + 4 = 12 \Omega$$

정답:

$$V_{th} = 10.67 \text{ V}, \quad R_{th} = 12 \Omega$$

문제 20

아래회로에서 A-B 단자에대한테브난등가전압과저항을구하시오.



풀이:

$$V_{th} = 26 \times \frac{6}{6 + 6} = 13 \text{ V}$$

$$R_{th} = 6 + 6 = 12 \Omega$$

정답:

$$V_{th} = 13 \text{ V}, \quad R_{th} = 12 \Omega$$