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1 Assignment #2

1.1 Question 1

Find v_1 and v_g when $v_o = 5V$.

1.2 Question 2

1.2.1 (a)

- 26 and 10 Ω are in series $\rightarrow 26 + 10 = 36\Omega$
 - 36 and 18 Ω are in parallel $\rightarrow \frac{36 \times 18}{36 + 18} = 12\Omega$
 - 12 and 6 Ω are in series $\rightarrow 12 + 6 = 18\Omega$
 - 18 and 36 Ω are in parallel $\rightarrow \frac{36 \times 18}{36 + 18} = 12\Omega$
- $\therefore R_{ab} = 12\Omega$

1.2.2 (b)

- 12 and 18 Ω are in series $\rightarrow 12 + 18 = 30\Omega$
 - 30 and 10 Ω are in parallel $\rightarrow \frac{30 \times 10}{30 + 10} = 7.5\Omega$
 - 7.5 and 15 Ω are in parallel $\rightarrow \frac{7.5 \times 15}{7.5 + 15} = 5\Omega$
- 5 and 20 are in parallel $\rightarrow 5 * 20_{5+20=45}$

1.3 Question 3

1.4 Question 4