

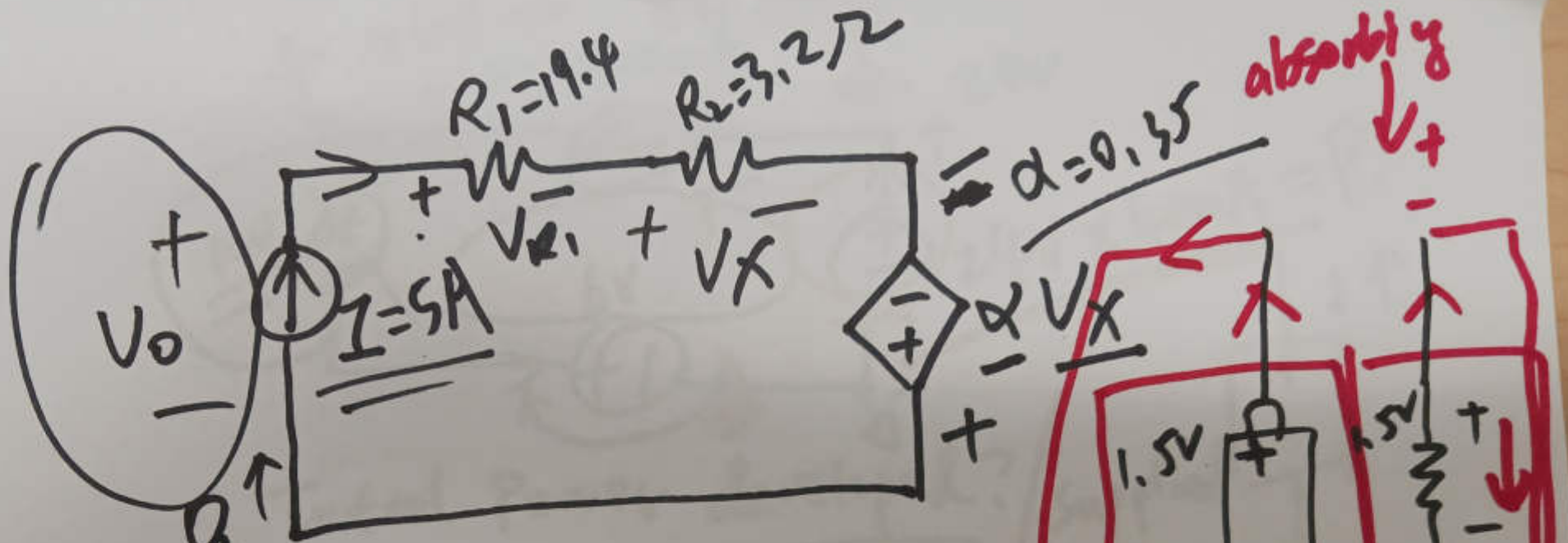
$$\alpha I_x = 4.25V$$

$$\alpha = \frac{4.25V}{-5.5A} =$$

- C C C S
- V C C S
- C C V S
- V C V S

- Current dependent CS
- voltage dependent CS
- Current dependent VS
- voltage dependent VS

①



$$V_{R1} = I \cdot R_1 = 5A \cdot 19.4$$

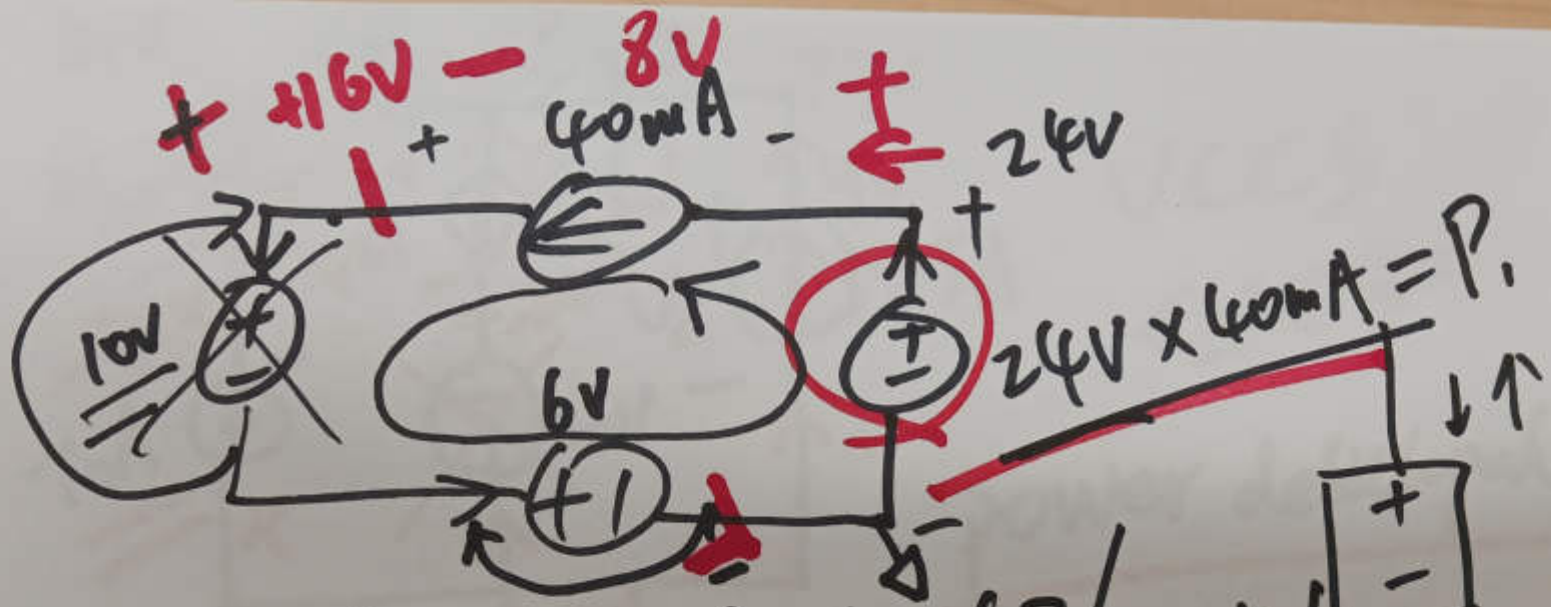
$$V_X = 5A \cdot 3.2 \Omega =$$

$$-V_0 + V_{R1} + V_X - \alpha V_X = 0$$

developing / delivering power

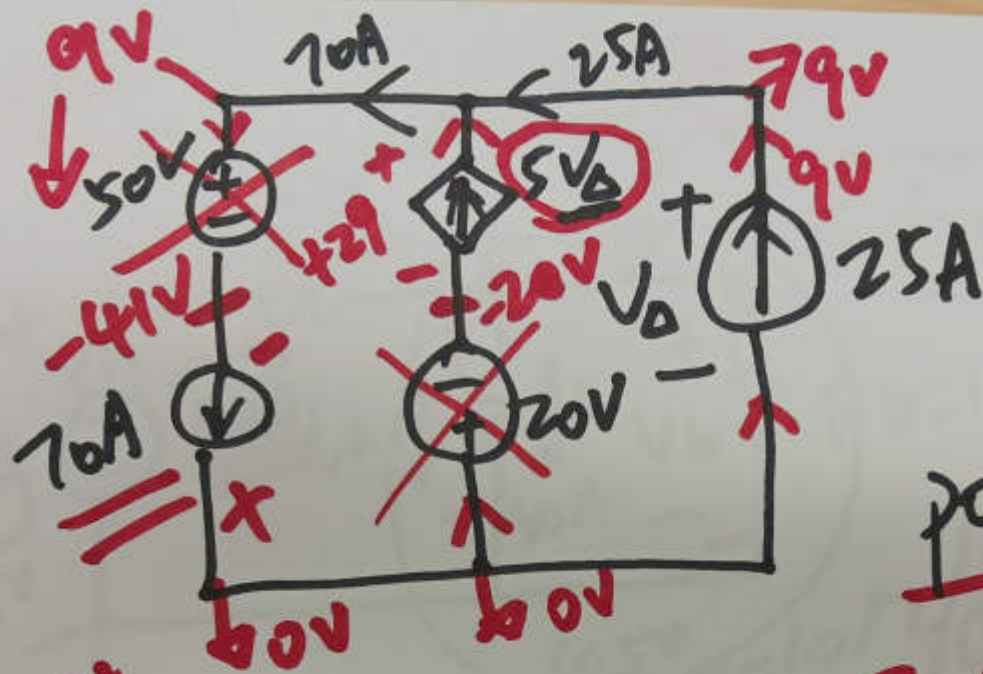
②

$$V_0 =$$



Total Power developed? / Supplied





Solve
the circuit

$$5 V_D = 70 - 25 = \underline{\underline{45A}}$$

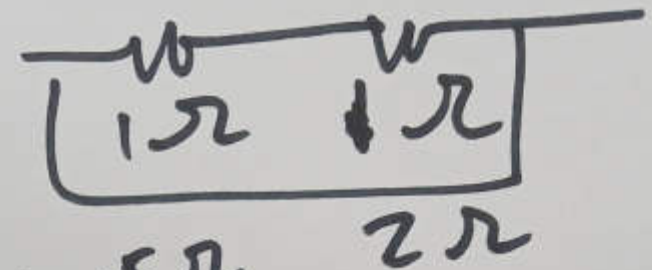
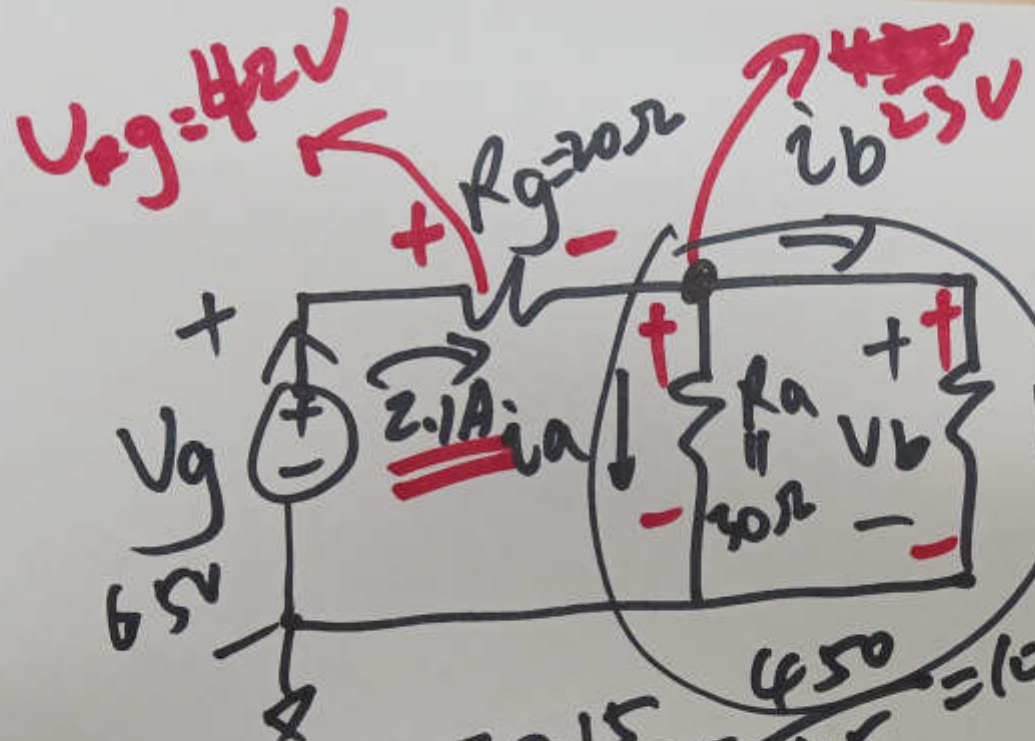
$$V_D = 9V$$

$$P_1 = 9V \times 25A \approx P_1 + P_2 + P_3 = \frac{1}{2} P_{dev}$$

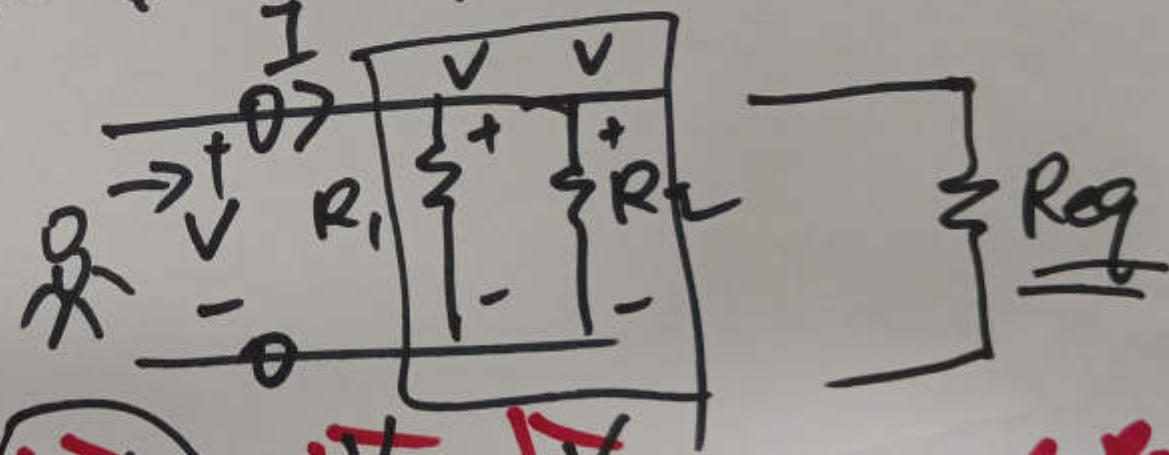
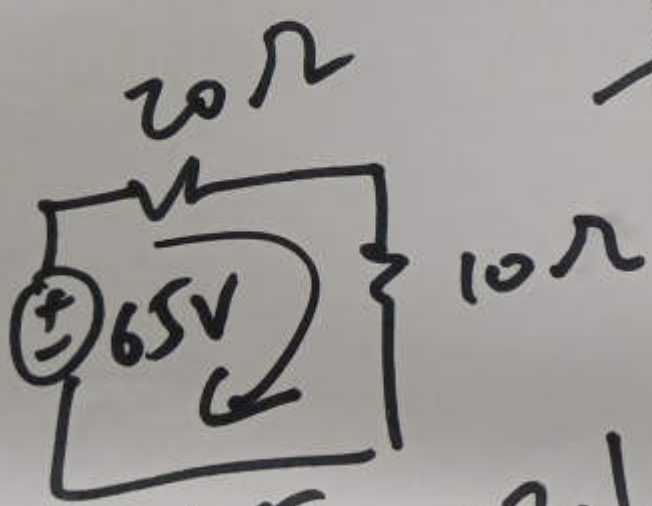
$$P_2 = 29V \times 45A$$

$$P_3 = 41 \times 70$$

(4)



$\frac{30.15}{30+15} = \frac{450}{45} = 10\Omega$ / dissipated / absorbed



$I = \frac{65}{20+10} = 2.1A$

$\frac{1V}{R_{eq}} = \frac{1V}{R_1} + \frac{1V}{R_2}$
 $R_{eq} = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2}} \Rightarrow \frac{R_1 R_2}{R_1 + R_2}$