Determine the power received by each of the three resistors.

v1 = 2 V

v2 = 3 V

v3 = 4 V

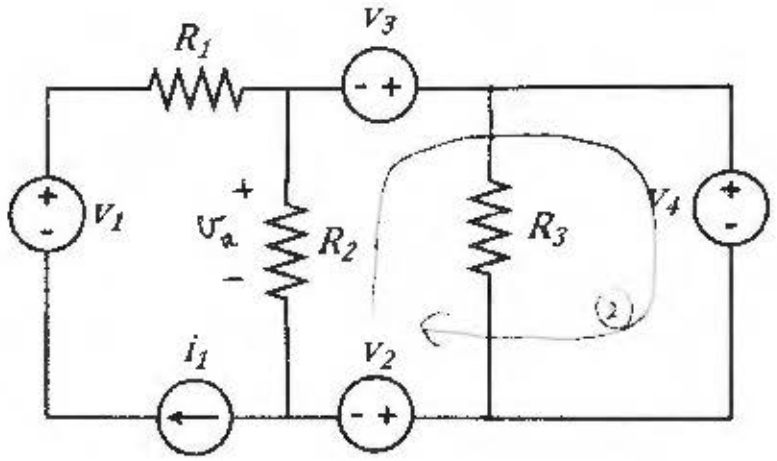
v4 = 2 V

i1 = 4 A

R1 = 2 Ω

R2 = 1 Ω

R3 = 4 Ω



(a) R_1 : $P = R_1 \cdot i_1^2 = 2 \cdot 4^2$ $\boxed{P_{R_1} = 32\ W}$

(b) R_3 : $P = \frac{v_4^2}{R_3} = \frac{4}{4}$ $\boxed{P_{R_3} = 1\ W}$

(c) KVL in (2) : $v_a + v_3 - v_4 - v_2 = 0$

$v_a = -4 + 2 + 3 = 1\ V$

$P = \frac{v_a^2}{R_2} = \frac{1}{1}$ $\boxed{P_{R_2} = 1\ W}$