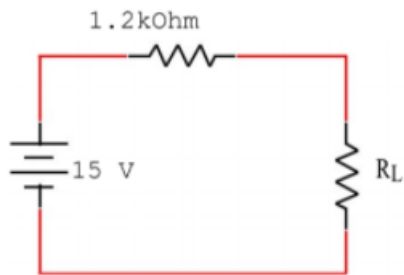Calculos

Cálculo de la potencia en RL

En Rl = 220 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 220} = 0,01056 \ A$$

$$V_{RL} = I * RL = \ 0,01056 * 220 = 2,32394 \ V$$

$$P = I * V_{RL} = 0,024548 \ W$$

En Rl = 470 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 470} = 0,00898 \ A$$

$$V_{RL} = I * RL = \ 0,00898 * 470 = 4,22155 \ V$$

$$P = I * V_{RL} = 0,03781 \ W$$

En RL = 680 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 680} = 0,007978 \ A$$

$$V_{RL} = I * RL = \ 0,007978 \ * 680 = 5,42443 \ V$$

$$P = I * V_{RL} = 0,043288 \ W$$

En RL = 820 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 820} = 0,007425 \ A$$

$$V_{RL} = I * RL = \ 0,007425 \ * 820 = 6,0891 \ V$$

$$P = I * V_{RL} = 0,045216 \ W$$

En RL = 1000 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 1000} = 0,006818 A$$

$$V_{RL} = I * RL = 0,006818 * 1000 = 6,818181 V$$

$$P = I * V_{RL} = 0,04651 W$$

En RL = 1500 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 1500} = 0,005555 A$$

$$V_{RL} = I * RL = 0,005555 * 1500 = 8,3333 V$$

$$P = I * V_{RL} = 0,046299 W$$

En RL = 1800 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 1800} = 0,00500 A$$

$$V_{RL} = I * RL = 0,00500 * 1800 = 9,000000 V$$

$$P = I * V_{RL} = 0,045000 W$$

En RL = 2200 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 2200} = 0,004417 A$$

$$V_{RL} = I * RL = 0,004417 * 22000 = 9,7058 V$$

$$P = I * V_{RL} = 0,042820 W$$

En RL = 3900 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 3900} = 0,002941 A$$

$$V_{RL} = I * RL = 0,002941 * 3900 = 11,47058 V$$

$$P = I * V_{RL} = 0,033737 W$$

En RL = 4700 Ω

$$I = \frac{V}{R_e} = \frac{15}{1200 + 4700} = 0,002542 A$$

$$V_{RL} = I * RL = 0,002542 * 4700 = 11,9491 V$$

$$P = I * V_{RL} = 0,030379 W$$