According to ohms law

$V = IR$.

Slope gives term of R_L'

$$\frac{1}{R_L'} = \frac{V_m}{I_m}$$

Ac power output:

we know that $V_{rms} = V_m/\sqrt{2}$ (1)

$I_{rms} = I_m/\sqrt{2}$ (1).

P_{rms} (or) $P_{ac} = V_{rms} \cdot I_{rms}$

$= V_m I_m/2$

$P_{ac} = V_m^2/2R_L$

Efficiency: %

$$\% \eta = \frac{P_{ac}}{P_{dc}} \times 100$$

$$= \frac{\frac{V_m I_m}{2}}{\frac{2}{\pi} V_{cc} I_m} \times 100$$

$$= \pi/4 \times 100 \times \frac{V_m}{V_{cc}}$$

$(V_m = V_{cc})$

$= \pi/4 \times 100$

$= 78.5\%$