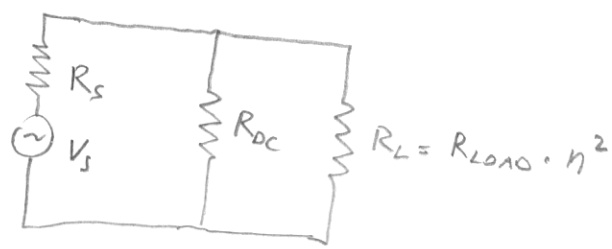
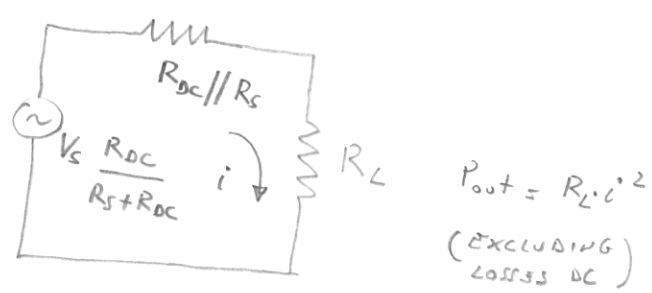


$\Rightarrow$   
 EQUIV. CIRCUIT  
 (RDH4 pg 202)



$\Downarrow$  THUS  
 THEVENIN



MAX  $P_{out}$  if  $i$  max

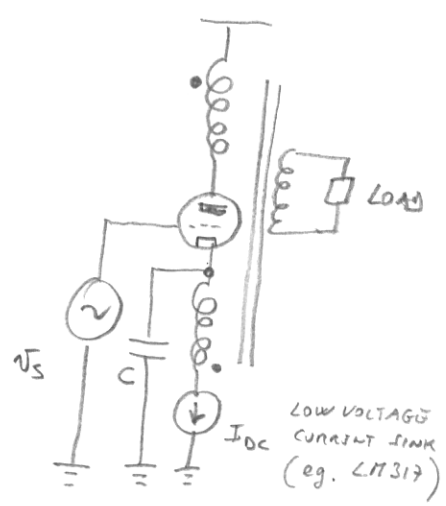
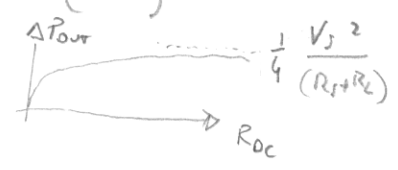
best  $R_{dc}$  ?

$$i = \frac{V_s R_{dc}}{R_s + R_{dc}} \frac{1}{\frac{R_s R_{dc}}{R_s + R_{dc}} + R_L} = \frac{V_s R_{dc}}{R_s R_{dc} + R_L R_s + R_L R_{dc}}$$

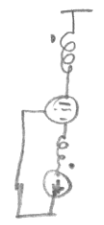
$$\frac{di}{dR_{dc}} = 0 \Rightarrow \frac{-(R_s + R_L)R_{dc} + (R_s R_{dc} + R_L R_s + R_L R_{dc})}{(R_s R_{dc} + R_L R_s + R_L R_{dc})^2} = \frac{R_L R_s}{(R_s R_{dc} + R_L R_s + R_L R_{dc})^2} = 0$$

BEST TO HAVE  $R_{dc}$  MAXIMUM POSSIBLE

THIS SUGGEST THE FOLLOWING VARIATION :



IN DC



IN AC

