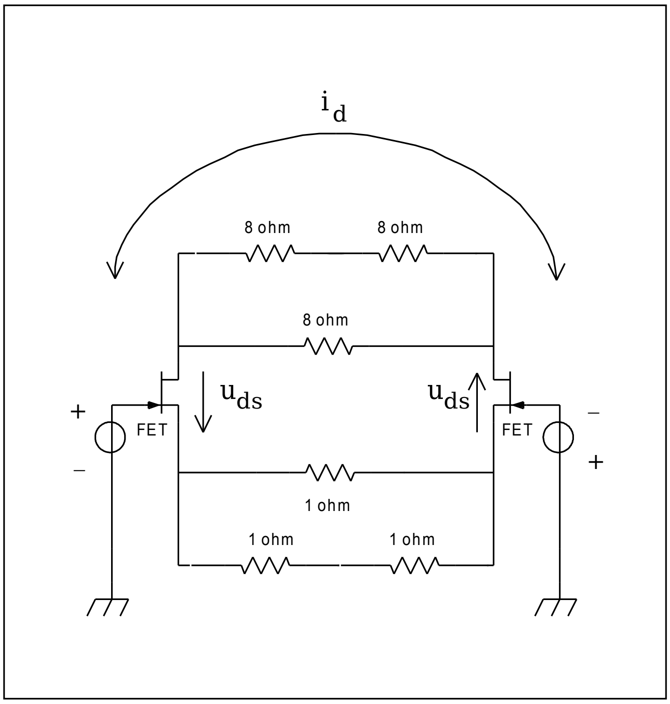


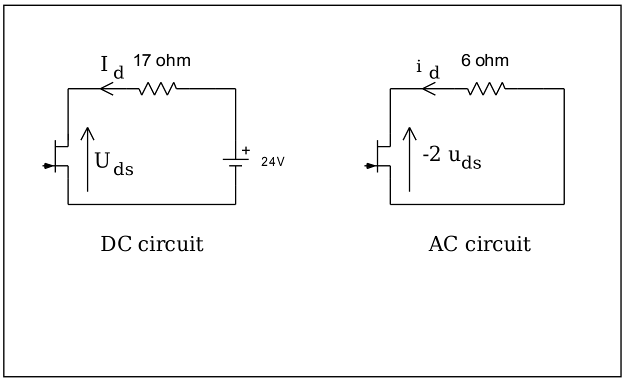
Replacement of the 8 ohm resistors:

$$\frac{(8+8)x\,8}{(8+8)+8}=5.333\,\Omega$$

Replacement of the 1 ohm resistors:

$$\frac{(1+1)x\,1}{(1+1)+1}=0.666\,\Omega$$

These replacements in series makes 6 ohm.



Now I have a circuit with a swinging current.

$$i_d(t)=-\frac{1}{3}\hat{u}_{ds}\sin\omega t$$

As you can see this AC circuit alone can give currents to infinity. Unlimited power.
This can not be true. So I'll have a closer look at the whole circuit to see how the AC circuit is fed with current from the DC circuit.

AC meets DC

While applying the Kirchoff's voltage law one interesting current was used, but suddenly had to leave the scene. It also appeared in two currents.

In one current which flows through the fet on the left:

$$I + i + i_{LS}$$

and in the other which flows through the fet on the right:

$$I - i - i_{LS}$$

Apparently there is an opposite component in the two currents. When one current increases the other decreases with the same amount. And it shows that a decrease can never be more than I and since the amount of decrease is equal to the amount of increase the total of a current through a fet can never be larger then 2I.
In other words on top of a DC component I , being the bias current, there is an AC component with an amplitude no more than I.
Here is a situation where one fet stops to conduct the other has a current flowing of two times the bias current.

$i + i_{LS}$ and I are parts of the same current. If there is no I , there can not be $i + i_{LS}$, and therefor one might say that I feeds $i + i_{LS}$.

All results are represented in the graph below.

Calculation of the maximum loudspeaker output power:

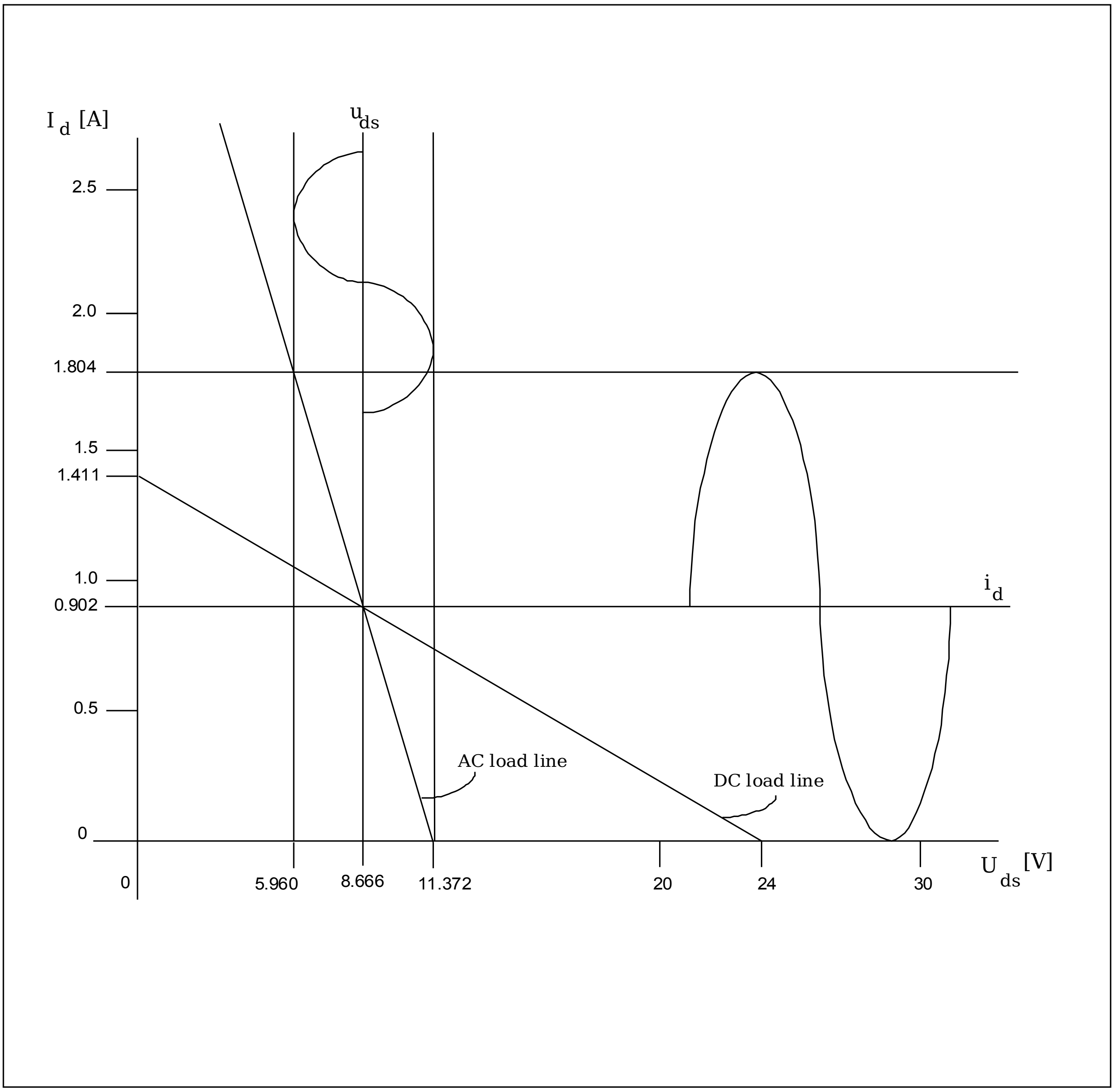
$i_d = i + i_{LS}$ and $2i = i_{LS}$ makes: $i_{LS} = \frac{2}{3} i_d$

The current through the loudspeaker is two third of the drain current

$$i_{d_{max}} = 0.902\ A$$

which makes the maximum current through the loudspeaker 2/3(0.902) = 0.601 A.
For calculating the output power of the loudspeaker, the RMS value of this amplitude is needed.
Loudspeaker output power = $I^2 R$ = (0.707 * 0.601)^2 * 8 = 1.444 Watt

The power supplied by the power supply = (2 * 12) * (2 * 0.902) = 43.296 Watt
which gives an efficiency of (100 * 1.444) / 43.296 = 3.335 %



I d [A]
u ds
2.5
2.0
1.804
1.5
1.411
1.0
0.902
0.5
0
i d
AC load line
DC load line
0
5.960
8.666
11.372
20
24
30
U ds [V]