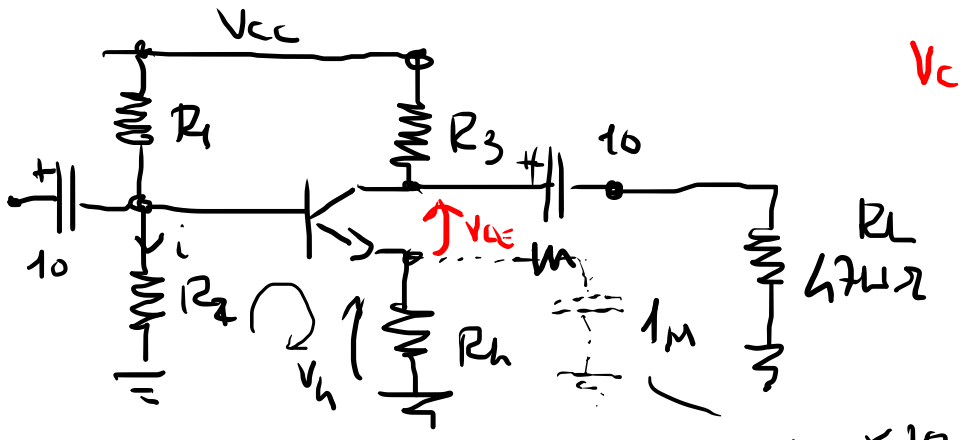

$V_{CE} = V_{cc}/2 = 6V$ $\quad H_{FE} = 110$ $\quad G = 10$

$V_{cc} = 12V$

R_3: $\quad R_3 \cong R_h/5 \cong \underline{10k\Omega}$.

R_h: $\quad G = \frac{R_3}{R_h} \rightsquigarrow R_h = \frac{R_3}{10} = 1k\Omega$

I_c: $\quad I_c = \frac{V_{cc}/2}{R_3 + R_h} = \frac{6}{10+1} = \frac{6V}{11k} = 0,55\ mA$

V_h: $\quad i_e \cong i_c \qquad V_h = i_c \cdot R_h = 0,55 \cdot 1k = 0,55\ V$

R_2: $\quad R_2 = \frac{H_{FE} \cdot R_h}{10} = \frac{110 \cdot 1k}{10} = 11k \cong 12k\Omega$

R_1: $\quad V_h + V_{BE} = R_2 \cdot i$

$$i = \frac{V_{CC}}{R_1 + R_2}$$

$$(V_h + V_{BE}) = R_2 \cdot \frac{V_{CC}}{(R_1 + R_2)} \quad \ldots$$

$$(R_1 + R_2) = \frac{R_2 \cdot V_{CC}}{V_h + V_{BE}} \rightsquigarrow R_1 = \frac{R_2 \cdot V_{CC}}{V_h + V_{BE}} - R_2$$

$V_{BE} \rightarrow 0{,}65\,V$

$$R_1 = \frac{12k \cdot 12\,V}{0{,}55\,V + 0{,}63} \simeq 120'000 \quad 120k\,\Omega .$$

$$G = \frac{R_3}{R_L} = \frac{10k}{1k} = 10 -$$