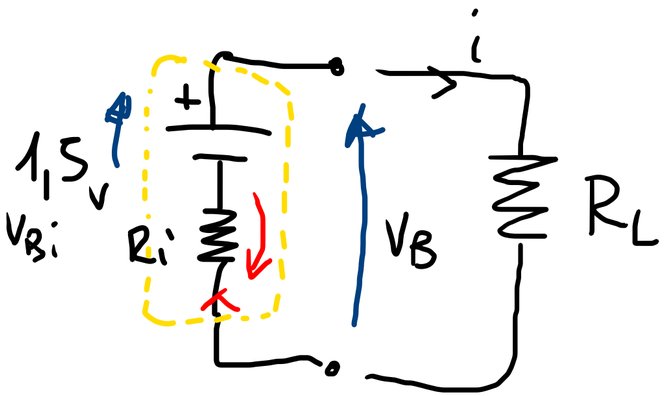
27C



AlKc 0,1 Ω

1,5 v

9v v ... 1 Ω

$R_i = 1\Omega$ $R_L = 10K$ $V_{B_i} = 1,5v$ $V_B = ?$

$$V_{Bi} = R_L \cdot i + R_i \cdot i \qquad i = \frac{V_{Bi}}{R_L + R_i}$$

$$V_B = V_{Bi} - R_i \cdot i = V_{Bi} - R_i \left(\frac{V_{Bi}}{R_L + R_i} \right) = V_{Bi} \left[1 - \frac{R_i}{R_L + R_i} \right] =$$

$$= V_{Bi} \cdot \left[\frac{R_L + \cancel{R_i} - \cancel{R_i}}{R_L + R_i} \right] = V_{Bi} \cdot \frac{R_L}{R_L + R_i}$$

$R_L = 10k$ $\quad V_B = 1{,}5 \cdot \frac{10\,000}{10000+1} = 1{,}4998$ $\quad i = \frac{1{,}5}{10000+1} = 0{,}14\,mA$

$R_L = 100\,\Omega$ $\quad V_B = 1{,}5 \cdot \frac{100}{100+1} = 1{,}485$ $\quad i = \frac{1{,}5}{101} = 14\,mA$

$R_L = 1\,\Omega$ $\quad V_B = 1{,}5 \cdot \frac{1}{1+1} = 0{,}75\,V$! $\quad i = \frac{1{,}5}{2} = 750\,mA$

Rint ↗

$g_{V\,Li}$	16 ... 18 Ω
$g_{V\,alk}$	1 ... 2 Ω

AA alkal'	0,15 Ω ... 0,3 Ω
AA NiMH	0,02 Ω - ~ 0,04 Ω