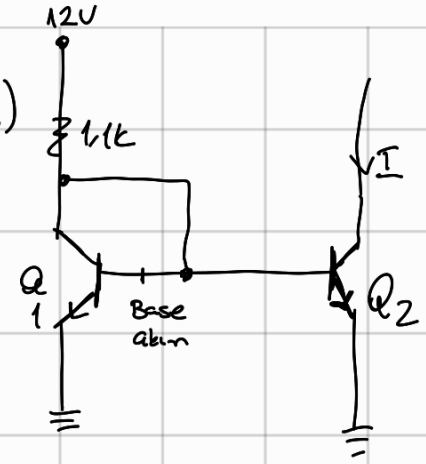
1)



$\beta = 100$ için

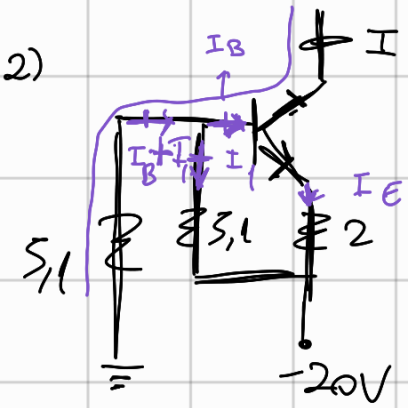
$12 = 1{,}1k(I_{C_1} + I_{B_1} + I_{B_2}) + 0.7$ (βI_{B_1})

$11{,}3 = 1{,}1k\underbrace{(\beta+2)}_{102} I_{B_1}$

$I_{C_1} = \beta I_B$

$I_C = 0.01A$

2)



$\beta I_B = I_C$

$\boxed{I_B + I_C = I_E}$ Her zaman

$-5{,}1k I_1 + 0{,}7 + 2k I_E = 0$

$5{,}1k(I_1 + I_B) + 0{,}7 + 2k I_E = 20$

$202k I_B - 5{,}1k I_1 = -0{,}7$

$+\ 207{,}1k I_B + 5{,}1k I_1 = 19{,}3$

$409{,}1 I_B = 18{,}6$

$I_E = \underbrace{(\beta+1)}_{101} I_B$

$I_E = 101 I_B$

$I_B = \frac{18{,}6}{409{,}1k}$

$I_C = \frac{1860}{409{,}1}$

3)