In[97]:= $U_t = 15$
$R_1 = 8000$
$R_2 = 2000$
$U_z = 8.6$
$U_{BE} = 0.6$
$\beta = 29$
$R_E = 60$
$C_E = 0.0001$
$R_C = 200$

$$U_{AB} = U_t \times \frac{R_1}{R_1 + R_2}$$

Out[106]= 12

In[107]:= $$R_{AB} = \frac{R_1 \times R_2}{R_1 + R_2}$$

Out[107]= 1600

In[109]:= $U_{AB} = I_B \times R_{AB} + U_z + U_{BE} + \{1 + \beta\} \times R_E \times I_B$

$$I_B = \frac{2.8}{3400}$$

Out[110]= 0.000823529

In[111]:= $I_C = I_B \times \beta$

Out[111]= 0.0238824

In[113]:= $I_E = \{1 + \beta\} \times I_B$

Out[113]= {0.0247059}

In[114]:= $U_{CE} = U_t - U_C - U_E = U_t - \{I_C \times R_C\} - \{I_E \times R_E\}$

Out[114]= {{8.74118}}

In[116]:= $U_{BC} = U_{RC} + U_E + U_{BE} - U_t = U_{RC} + \{I_E \times R_E\} + U_{BE} - U_t$

Out[116]= {{-10.6136}}

In[117]:= $U_{R2} = U_t - U_z - U_{BE} - U_E = U_t - U_z - U_{BE} - \{I_E \times R_E\}$

Out[117]= {{4.31765}}

In[118]:= $I_{R2} = \dfrac{U_{R2}}{R_2}$

Out[118]= {{0.00215882}}

In[119]:= $U_{R1} = U_t - U_{R2}$

Out[119]= {{10.6824}}

In[120]:= $I_{R1} = \dfrac{U_{R1}}{R_1}$

Out[120]= {{0.00133529}}

In[121]:= $P_{U_t} = U_t \times \{I_C + I_{R2}\}$

Out[121]= {{{0.390618}}}