



```
In[1]:= Ut = 14.8
        UBE = 0.6
        β = 59
        R1 = R2 = 10 000
        RE = 30
        RC = 100
```

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

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Out[7]= 7.4
```

$$R_{AB} = \frac{R_1 \times R_2}{R_1 + R_2}$$

```
Out[8]= 5000
```

$$I_B = \frac{U_{AB} - U_{BE}}{R_{AB} + \{1 + \beta\} \times R_E}$$

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Out[9]= { 0.001 }
```

$$I_C = \beta \times I_B$$

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Out[10]= { 0.059 }
```

$$I_E = \{1 + \beta\} \times I_B$$

```
Out[11]= { 0.06 }
```

$$U_{CE} = U_t - U_C - U_E = U_t - \{I_C \times R_C\} - \{I_E \times R_E\}$$

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Out[12]= { { 7.1 } }
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$$U_{BC} = U_{BE} - U_{CE}$$

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Out[13]= { { -6.5 } }
```

$$U_{R2} = U_t - U_{R1} = U_t - \{U_{BE} + U_{RE}\} = U_t - \{U_{BE} + (I_E \times R_E)\}$$

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Out[14]= { { 12.4 } }
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$$U_{R1} = U_{BE} + U_{RE} = U_{BE} + (I_E \times R_E)$$

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Out[16]= { 2.4 }
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In[17]:=  $\mathbf{I_{R1}} = \frac{\mathbf{U_{R1}}}{\mathbf{R_1}}$

Out[17]= { 0.00024 }

In[18]:=  $\mathbf{I_{R2}} = \frac{\mathbf{U_{R2}}}{\mathbf{R_2}}$

Out[18]= { { 0.00124 } }