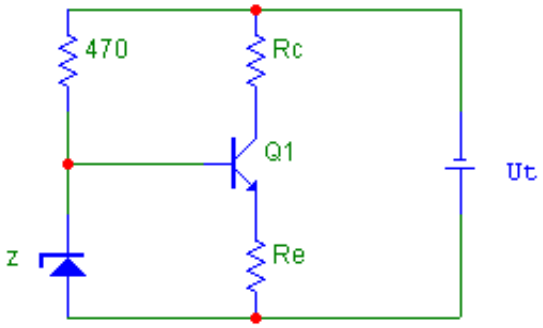

$\beta = 59$

$U_t = 15$

$U_{BE} = 0.6$

$U_Z = 5.6$

$R_C = R_E = 100$

```
Solve[U_Z == U_BE + U_RE, U_RE]
```

```
{{U_RE → 5.`}}
```

In[67]:= $I_E = \frac{U_{RE}}{R_E} = \frac{5}{100}$

Out[67]= $\frac{1}{20}$

In[73]:= $I_E = (1 + \beta) \times I_B$

$I_B = \frac{(1 + \beta)}{I_E}$

Out[74]= {0.001}

In[70]:= $I_C = \beta \times I_B$

Out[70]= {0.059}

In[75]:= $I_{470} = \frac{U_t - U_Z}{470}$

Out[75]= 0.02

In[76]:= $I_Z = I_{470} - I_B$

Out[76]= {0.019}

In[79]:= $U_{CE} = U_t - U_C - U_E = U_t - \{I_C \times R_C\} - \{I_E \times R_E\} = 15 - 5.9 - 5$

Out[79]= 4.1

In[80]:= $P_{470} = (I_{470})^2 \times 470$

Out[80]= 0.188

In[81]:= $U_{BC} = U_{BE} - U_{CE}$

Out[81]= -3.5