Untitled

September 25, 2017

In [5]:
```
import matplotlib.pyplot as plt
import numpy as np
```

In [12]:
```
T = np.zeros(5)
P = np.zeros(5)
T_qsort = np.zeros(5)
n = 0
with open('stats.txt', 'r') as f:
    for data in f:
        if n >= 0:
            data = data.split(' ')
            if n % 2 == 0:
                for i, s in enumerate(data):
                    if (i == 0):
                        s = s.split('s')
                        T[n // 2] = float(s[0])
                    elif (i == 3):
                        P[n // 2] = float(s)
            else:
                s = data[0].split('s')
                T_qsort[n // 2] = float(s[0])
        n += 1

S_p = T[0] / T
E_p = S_p / P
```

In [13]:
```
print(T)
print(P)
print(T_qsort)
print(S_p)
print(E_p)
```

```
[ 0.096147  0.048814  0.03843   0.157313  0.153009]
[  1.   2.   4.   8.  16.]
[ 0.048375  0.050853  0.048474  0.04866   0.04853 ]
[ 1.          1.96966034  2.50187354  0.6111828   0.6283748 ]
[ 1.          0.98483017  0.62546838  0.07639785  0.03927343]
```

In [14]:
```
plt.figure(figsize=(16, 5))
plt.plot(P, T, color='blue', label=u'T(P)')
plt.scatter(P, T, color='green')
plt.plot(P, S_p, color='yellow', label=u'S(P)')
plt.scatter(P, S_p, color='green')
plt.plot(P, E_p, color='red', label=u'E(P)')
plt.scatter(P, E_p, color='green')
plt.plot(P, T_qsort, color='orange', label=u'T_qsort, P = 1')
plt.scatter(P, T_qsort, color='green')
plt.legend()
plt.show()
```