In [1]:
```
import matplotlib.pyplot as plt
import numpy as np
```

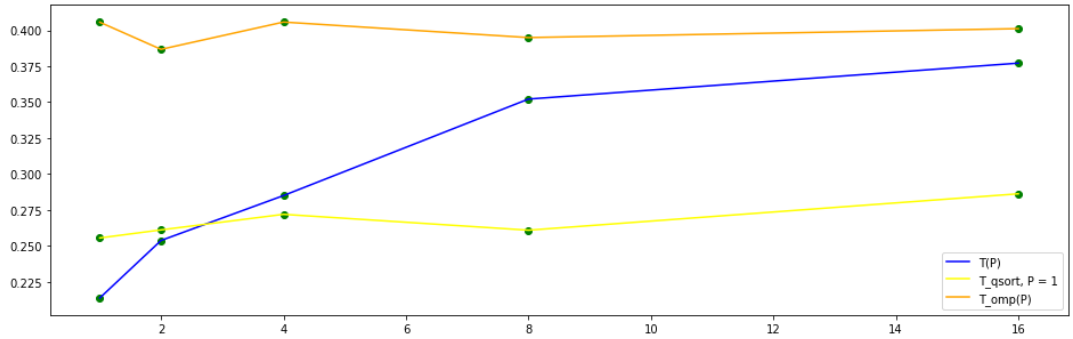
In [5]:
```
T = np.zeros(5)
P = np.zeros(5)
T_qsort = np.zeros(5)
T_omp = np.zeros(5)
n = 0
with open('stats.txt', 'r') as f:
    for data in f:
        if n >= 0:
            data = data.split(' ')
            if n % 3 == 0:
                for i, s in enumerate(data):
                    if (i == 0):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

S_p = T[0] / T
E_p = S_p / P
S_p_omp = T_omp[0] / T_omp
E_p_omp = S_p_omp / P
```

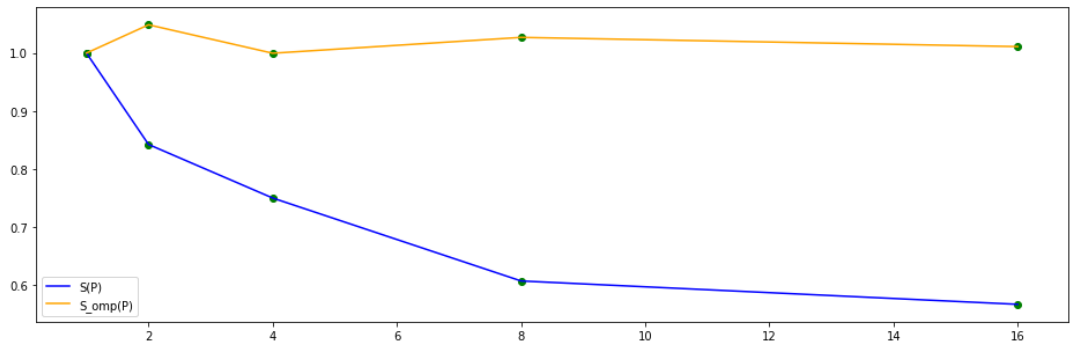
In [6]:
```
print(T)
print(P)
print(T_qsort)
print(T_omp)
print(S_p)
print(E_p)
print(S_p_omp)
print(E_p_omp)
```

```
[ 0.213875  0.25385   0.28508   0.352165  0.377156]
[  1.   2.   4.   8.  16.]
[ 0.255606  0.261214  0.272039  0.261007  0.286303]
[ 0.405606  0.386744  0.405712  0.394928  0.401125]
[ 1.          0.84252511  0.75022801  0.60731475  0.56707304]
[ 1.          0.42126256  0.187557    0.07591434  0.03544207]
[ 1.          1.04877128  0.99973873  1.02703784  1.01117108]
[ 1.          0.52438564  0.24993468  0.12837973  0.06319819]
```

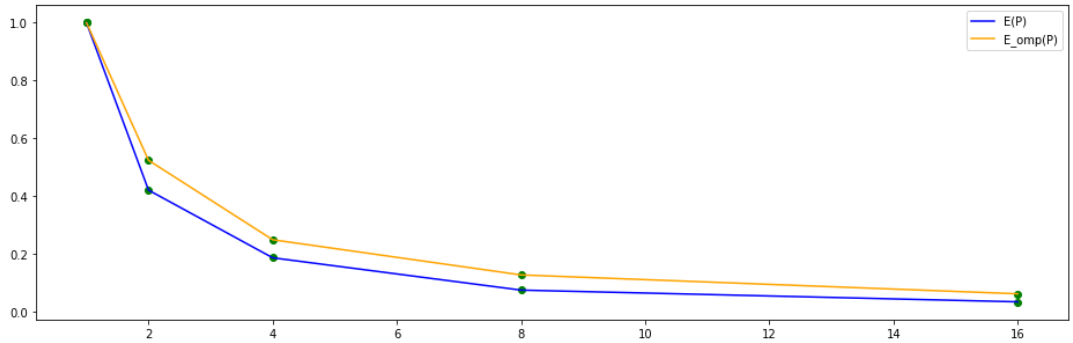
In [8]:
```
plt.figure(figsize=(16, 5))
plt.plot(P, T, color='blue', label=u'T(P)')
plt.scatter(P, T, color='green')
plt.plot(P, T_qsort, color='yellow', label=u'T_qsort, P = 1')
plt.scatter(P, T_qsort, color='green')
plt.plot(P, T_omp, color='orange', label=u'T_omp(P)')
plt.scatter(P, T_omp, color='green')
plt.legend()
plt.show()
```



In [9]:
```
plt.figure(figsize=(16, 5))
plt.plot(P, S_p, color='blue', label=u'S(P)')
plt.scatter(P, S_p, color='green')
plt.plot(P, S_p_omp, color='orange', label=u'S_omp(P)')
plt.scatter(P, S_p_omp, color='green')
plt.legend()
plt.show()
```



In [10]:
```
plt.figure(figsize=(16, 5))
plt.plot(P, E_p, color='blue', label=u'E(P)')
plt.scatter(P, E_p, color='green')
plt.plot(P, E_p_omp, color='orange', label=u'E_omp(P)')
plt.scatter(P, E_p_omp, color='green')
plt.legend()
plt.show()
```



In [ ]: