

```
In[1]:= Tra[f_, a_, b_, n_] :=  
N[(1/2) ((b-a)/n) (f[a] + f[b] + 2 Sum[f[a + k ((b-a)/n)], {k, 1, n-1}]), 10]
```

```
In[2]:= f[x_] := Sin[x^2]
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```
In[3]:= Tra[f, 0, 1, 10]
```

```
Out[3]= 0.3111708112
```

```
In[4]:= N[∫01 f[x] dx, 10]
```

```
Out[4]= 0.3102683017
```

```
In[5]:= Table[{n, Tra[f, 0, 1, n]}, {n, 10, 100, 10}] // TableForm
```

```
Out[5]/TableForm=
```

10	0.3111708112
20	0.3104935529
30	0.3103683824
40	0.3103245910
50	0.3103043251
60	0.3102933173
70	0.3102866802
80	0.3102823726
90	0.3102794194
100	0.3102773070