

```

In[21]:= f[n_] := 1/n

In[22]:= g[n_] := Sin[n]

In[10]:= T := {1, 2, 3, 4, 10, 19, 36, 100, 250, 500, 1000, 2137, 10000,
               100000, 10^6, 10^7, 10^8, 10^9, 2000000000, 2147483646, 2147483647}

In[11]:= For[i = 1, i ≤ Length[T], i++,
Print[T[[i]], "\t", First[Timing[DirichletConvolve[f[n], g[n], n, T[[i]]]]]
]
]

1      0.000132
2      0.000057
3      0.000101
4      0.000079
10     0.000084
19     0.000157
36     0.000082
100    0.000097
250    0.00008
500    0.00009
1000    0.000136
2137    0.000066
10000    0.000206
100000    0.000161
1000000    0.000198
10000000    0.000239
100000000    0.000271
1000000000    0.00037
2000000000    0.000391
2147483646    0.000685
2147483647    0.000157

In[12]:= For[i = 1, i ≤ Length[T], i++,
Print[First[Timing[DirichletConvolve[f[n], g[n], n, T[[i]]]]]
]
]

```

0.000139

0.000168

0.000056

0.000084

0.000088

0.000051

0.000072

0.000068

0.000134

0.000114

0.0001

0.000075

0.000224

0.000159

0.000223

0.000223

0.000369

0.000422

0.00042

0.000675

0.000244