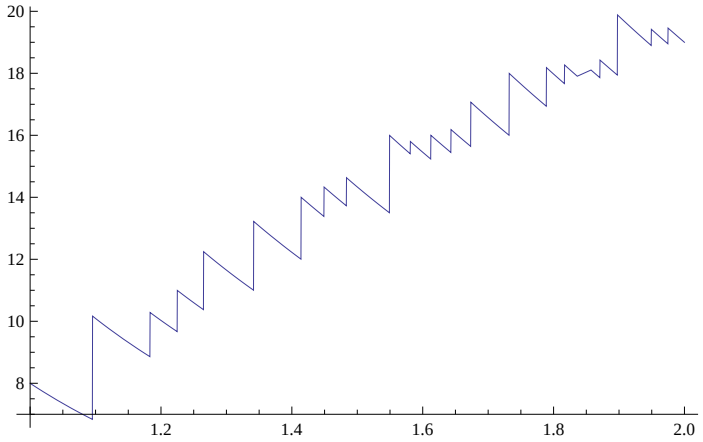
```
f[n_, k_] := Sum[(-1)^(j + 1) f[n / j, k - 1], {j, 2, n}]; f[n_, 0] := 1
lin[n_] := Sum[(-1)^(k + 1) / k f[n, k], {k, 1, Log[2, n]}]

Table[{n, lin[n] - lin[n - 1]}, {n, 2, 100}] // TableForm
```

2	-1
3	1
4	$-\frac{3}{2}$
5	1
6	0
7	1
8	$-\frac{7}{3}$
9	$\frac{1}{2}$
10	0
11	1
12	0
13	1
14	0
15	0
16	$-\frac{15}{4}$
17	1
18	0
19	1
20	0
21	0
22	0
23	1
24	0
25	$\frac{1}{2}$
26	0
27	$\frac{1}{3}$
28	0
29	1
30	0
31	1
32	$-\frac{31}{5}$
33	0
34	0
35	0
36	0
37	1
38	0
39	0
40	0
41	1
42	0
43	1
44	0
45	0
46	0
47	1
48	0
49	$\frac{1}{2}$

50	0
51	0
52	0
53	1
54	0
55	0
56	0
57	0
58	0
59	1
60	0
61	1
62	0
63	0
64	$-\frac{21}{2}$
65	0
66	0
67	1
68	0
69	0
70	0
71	1
72	0
73	1
74	0
75	0
76	0
77	0
78	0
79	1
80	0
81	$\frac{1}{4}$
82	0
83	1
84	0
85	0
86	0
87	0
88	0
89	1
90	0
91	0
92	0
93	0
94	0
95	0
96	0
97	1
98	0
99	0
100	0

```
CC[n_, c_] := (1 / c^2) Sum[1, {j, 1, c^2 n}, {k, 1, Floor[c^2 n / j]}] -
  2 (1 / c^2) Sum[1, {j, 1, c}, {k, 1, Floor[c^2 n / j]}] + Sum[1, {j, 1, c}, {k, 1, c}]
```

```
Plot[CC[10, c], {c, 1, 2}]
```



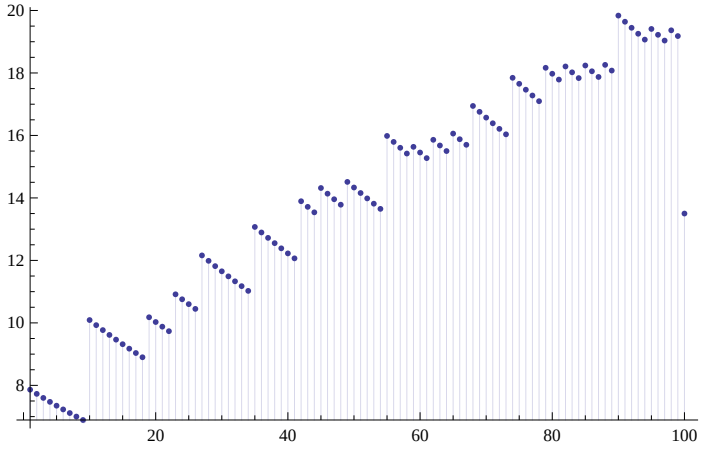

```
Sum[CC[100., 1 + cc * .001] - CC[100., 1 + (cc - 1) * .001], {cc, 1, 3000}]
```

```
70.625
```

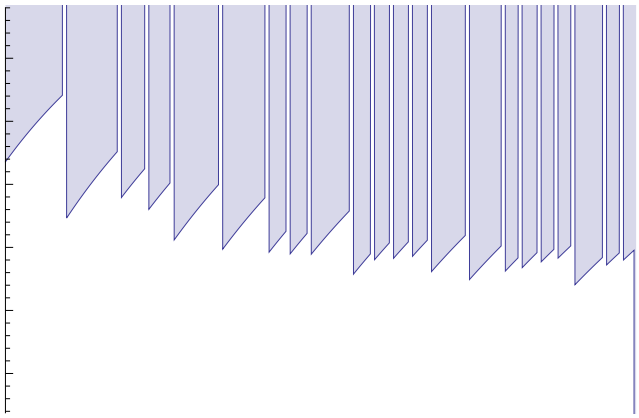
```
CC[100, 4.] - CC[100, 1]
```

```
70.625
```

```
DiscretePlot[CC[10, 1 + c * .01], {c, 1, 100}]
```



```
DiscretePlot[CC[10, 1 + c / 300] - CC[10, 1 + (c - 1) / 300], {c, 1, 300}]
```



```
Table[{10. * (1 + c / 300.), CC[10., 1 + c / 300.] - CC[10, 1 + (c - 1) / 300]}, {c, 1, 300}] //
 TableForm
```

10.0333	−0.0464344
10.0667	−0.0459739
10.1	−0.0455194
10.1333	−0.045071
10.1667	−0.0446284
10.2	−0.0441915
10.2333	−0.0437604
10.2667	−0.0433349
10.3	−0.0429148
10.3333	−0.0425002
10.3667	−0.0420909
10.4	−0.0416868
10.4333	−0.0412879
10.4667	−0.040894
10.5	−0.0405052
10.5333	−0.0401213
10.5667	−0.0397422
10.6	−0.0393678
10.6333	−0.0389982
10.6667	−0.0386331
10.7	−0.0382727
10.7333	−0.0379166
10.7667	−0.037565
10.8	−0.0372177
10.8333	−0.0368747
10.8667	−0.0365359
10.9	−0.0362012
10.9333	−0.0358706
10.9667	3.29037
11.	−0.0553479
11.0333	−0.054847
11.0667	−0.0543521
11.1	−0.0538632
11.1333	−0.0533801
11.1667	−0.0529028
11.2	−0.0524312
11.2333	−0.0519651

```
11.2667    -0.0515046
11.3       -0.0510494
11.3333    -0.0505997
11.3667    -0.0501552
11.4       -0.0497159
11.4333    -0.0492817
11.4667    -0.0488525
11.5       -0.0484283
11.5333    -0.048009
11.5667    -0.0475946
11.6       -0.0471848
11.6333    -0.0467798
11.6667    -0.0463794
11.7       -0.0459836
11.7333    -0.0455922
11.7667    -0.0452053
11.8       -0.0448228
11.8333    1.38384
11.8667    -0.0520833
11.9       -0.0516463
11.9333    -0.0512141
11.9667    -0.0507867
12.        -0.0503641
12.0333    -0.0499461
12.0667    -0.0495328
12.1       -0.049124
12.1333    -0.0487197
12.1667    -0.0483198
12.2       -0.0479243
12.2333    -0.047533
12.2667    1.28201
12.3       -0.0539576
12.3333    -0.0535207
12.3667    -0.0530885
12.4       -0.052661
12.4333    -0.052238
12.4667    -0.0518195
12.5       -0.0514055
12.5333    -0.0509959
12.5667    -0.0505907
12.6       -0.0501897
12.6333    -0.0497929
12.6667    1.82041
12.7       -0.0588142
12.7333    -0.058353
12.7667    -0.0578965
12.8       -0.0574448
12.8333    -0.0569977
12.8667    -0.0565553
12.9       -0.0561175
12.9333    -0.0556841
12.9667    -0.0552552
13.        -0.0548307
13.0333    -0.0544106
13.0667    -0.0539947
13.1       -0.0535831
```

```
13.1333    -0.0531756
13.1667    -0.0527722
13.2       -0.0523729
13.2333    -0.0519777
13.2667    -0.0515864
13.3       -0.051199
13.3333    -0.0508155
13.3667    -0.0504358
13.4       -0.0500599
13.4333    2.16694
13.4667    -0.060279
13.5       -0.059833
13.5333    -0.0593915
13.5667    -0.0589542
13.6       -0.0585213
13.6333    -0.0580925
13.6667    -0.057668
13.7       -0.0572476
13.7333    -0.0568312
13.7667    -0.0564189
13.8       -0.0560106
13.8333    -0.0556062
13.8667    -0.0552056
13.9       -0.0548089
13.9333    -0.054416
13.9667    -0.0540269
14.        -0.0536415
14.0333    -0.0532597
14.0667    -0.0528815
14.1       -0.0525069
14.1333    -0.0521358
14.1667    1.94131
14.2       -0.0607503
14.2333    -0.060324
14.2667    -0.0599016
14.3       -0.0594832
14.3333    -0.0590687
14.3667    -0.058658
14.4       -0.0582512
14.4333    -0.057848
14.4667    -0.0574486
14.5       0.894196
14.5333    -0.0610193
14.5667    -0.0606009
14.6       -0.0601863
14.6333    -0.0597755
14.6667    -0.0593684
14.7       -0.0589649
14.7333    -0.0585652
14.7667    -0.058169
14.8       -0.0577764
14.8333    0.851589
14.8667    -0.0610733
14.9       -0.0606639
14.9333    -0.0602581
14.9667    -0.059856
```

```
15.        -0.0594574
15.0333    -0.0590623
15.0667    -0.0586707
15.1       -0.0582826
15.1333    -0.0578979
15.1667    -0.0575166
15.2       -0.0571386
15.2333    -0.0567639
15.2667    -0.0563925
15.3       -0.0560243
15.3333    -0.0556594
15.3667    -0.0552975
15.4       -0.0549389
15.4333    -0.0545833
15.4667    -0.0542307
15.5       2.44352
15.5333    -0.0642417
15.5667    -0.0638294
15.6       -0.0634207
15.6333    -0.0630155
15.6667    -0.0626137
15.7       -0.0622153
15.7333    -0.0618203
15.7667    -0.0614286
15.8       -0.0610402
15.8333    0.338237
15.8667    -0.0619475
15.9       -0.0615583
15.9333    -0.0611723
15.9667    -0.0607896
16.        -0.0604101
16.0333    -0.0600337
16.0667    -0.0596604
16.1       -0.0592902
16.1333    0.709467
16.1667    -0.0617244
16.2       -0.0613438
16.2333    -0.0609663
16.2667    -0.0605918
16.3       -0.0602205
16.3333    -0.0598522
16.3667    -0.0594869
16.4       -0.0591245
16.4333    0.681826
16.4667    -0.0614039
16.5       -0.0610321
16.5333    -0.0606633
16.5667    -0.0602975
16.6       -0.0599347
16.6333    -0.0595747
16.6667    -0.0592176
16.7       -0.0588634
16.7333    1.37004
16.7667    -0.0638378
16.8       -0.0634582
16.8333    -0.0630816
```

```
16.8667    -0.0627079
16.9       -0.0623372
16.9333    -0.0619695
16.9667    -0.0616046
17.        -0.0612426
17.0333    -0.0608834
17.0667    -0.060527
17.1       -0.0601734
17.1333    -0.0598225
17.1667    -0.0594743
17.2       -0.0591289
17.2333    -0.0587861
17.2667    -0.058446
17.3       -0.0581085
17.3333    1.93927
17.3667    -0.0651
17.4       -0.0647263
17.4333    -0.0643553
17.4667    -0.0639872
17.5       -0.063622
17.5333    -0.0632594
17.5667    -0.0628997
17.6       -0.0625426
17.6333    -0.0621883
17.6667    -0.0618366
17.7       -0.0614876
17.7333    -0.0611412
17.7667    -0.0607973
17.8       -0.0604561
17.8333    -0.0601174
17.8667    -0.0597813
17.9       1.18895
17.9333    -0.063753
17.9667    -0.0633985
18.        -0.0630466
18.0333    -0.0626973
18.0667    -0.0623506
18.1       -0.0620064
18.1333    -0.0616648
18.1667    0.544684
18.2       -0.0632068
18.2333    -0.0628605
18.2667    -0.0625167
18.3       -0.0621753
18.3333    -0.0618365
18.3667    -0.0615001
18.4       -0.0611662
18.4333    -0.0608347
18.4667    0.525974
18.5       -0.0622903
18.5333    -0.0619545
18.5667    -0.0616211
18.6       -0.0612901
18.6333    -0.0609615
18.6667    -0.0606352
18.7       -0.0603113
```

```
18.7333    0.509912
18.7667    -0.0616929
18.8       -0.0613651
18.8333    -0.0610395
18.8667    -0.0607163
18.9       -0.0603953
18.9333    -0.0600766
18.9667    -0.0597601
19.        1.87961
19.0333    -0.0659197
19.0667    -0.0655743
19.1       -0.0652312
19.1333    -0.0648906
19.1667    -0.0645523
19.2       -0.0642164
19.2333    -0.0638828
19.2667    -0.0635515
19.3       -0.0632225
19.3333    -0.0628958
19.3667    -0.0625713
19.4       -0.0622491
19.4333    -0.061929
19.4667    -0.0616112
19.5       0.464674
19.5333    -0.0627755
19.5667    -0.062455
19.6       -0.0621366
19.6333    -0.0618204
19.6667    -0.0615063
19.7       -0.0611944
19.7333    -0.0608845
19.7667    0.451297
19.8       -0.0619931
19.8333    -0.0616808
19.8667    -0.0613706
19.9       -0.0610625
19.9333    -0.0607564
19.9667    -0.0604523
20.        -5.56015
```