```
ClearAll["Global`*"]
f1[n_, c_] := f1[n, c] =
  (Sum[1, {j, 1, Floor[c^2n]}, {k, 1, Floor[c^2n / j]}] - 2Sum[1, {j, 1, Floor[c]},
        {k, 1, Floor[c^2n / j]}] + Sum[1, {j, 1, Floor[c]}, {k, 1, Floor[c]}]) / c^2
N[f1[4, 1]]
1.
N[Gamma[2, 0, -Log[4]] / Gamma[2]]
2.54518 - 6.23389 \times 10^{-16} i
DiscretePlot[f1[4, 1+c * .01], {c, 0, 100}]
DiscretePlot[f1[4, 1+c*.01] - f1[4, 1+(c-1)*.01], \{c, 0, 100\}]
0.02
-0.02
-0.04
-0.06
-0.08
f2[c_] := f1[100, c]
f2[1]
283
```