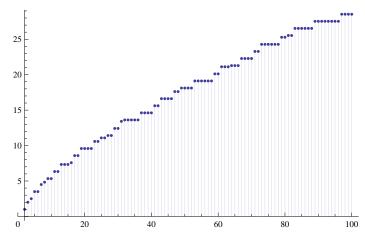
```
P[n_, k_, j_] := 1 / k - P[n / j, k + 1, Floor[n / j]] + P[n, k, j - 1]
P[n_, k_, 1] := 0
```

DiscretePlot[P[n, 1, n], {n, 2, 100}]

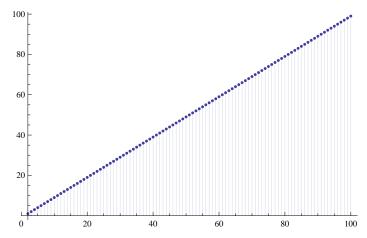


Q[n\_, k\_, j\_] :=

 $(\texttt{MangoldtLambda[j] / Log[j]) (1 / (k!) + Q[n / j, k+1, Floor[n / j]]) + Q[n, k, j-1]$ 

 $Q[n_{-}, k_{-}, 1] := 0$ 

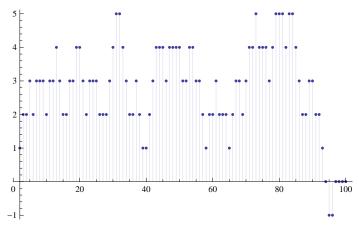
 $\texttt{DiscretePlot}[\mathtt{Q[n,1,n],\{n,2,100\}}]$ 



```
f2[n_, k_, j_] :=
  ({\tt MangoldtLambda[j] / Log[j]}) \; ({\tt 1 / (k!) - f2[n/j, k+1, Floor[n/j]]}) \; + \; f2[n, k, j-1] \\
f2[n_{,k_{,1}]} := 0
DiscretePlot[f2[n, 1, n], {n, 2, 100}]
               20
 \texttt{f3}[\texttt{n\_}, \texttt{k\_}, \texttt{j\_}] := \texttt{MoebiusMu}[\texttt{j}] \; (-1/k - \texttt{f3}[\texttt{n/j}, \texttt{k+1}, \texttt{Floor}[\texttt{n/j}]]) + \texttt{f3}[\texttt{n}, \texttt{k}, \texttt{j-1}] 
f3[n_{k_{1}}, k_{1}] := 0
DiscretePlot[f3[n, 1, n], {n, 2, 100}]
25
20
15
10
f4[n_{j}] := MoebiusMu[j] (-1 - f4[n/j, Floor[n/j]]) + f4[n, j-1]
f4[n_, 1] := 0
DiscretePlot[f4[n, n], {n, 2, 100}]
100 ⊢
 80
 60
 40
 20
                                                                         100
```

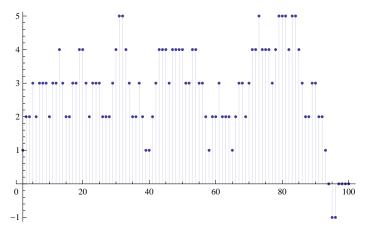
 $f5[n_{j}] := 1 - f5[n/j, Floor[n/j]] + f5[n, j-1]$ f5[n\_, 1] := 0

DiscretePlot[f5[n, n], {n, 2, 100}]

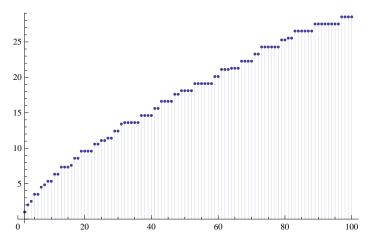


 $\mathtt{MM}[\mathtt{n}_{\_}] := \mathtt{Sum}[\ \mathtt{MoebiusMu}[\mathtt{j}], \{\mathtt{j}, \mathtt{1}, \mathtt{n}\}]$ 

DiscretePlot[1-MM[n], {n, 2, 100}]



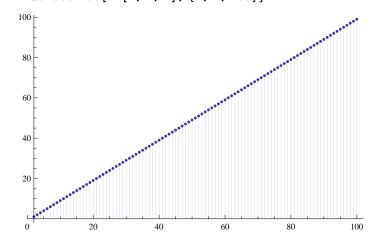
```
f6[n_, k_, j_] := BernoulliB[k] / (k!) +
    (MangoldtLambda[j] / Log[j]) f6[n / j, k + 1, Floor[n / j]] + f6[n, k, j - 1]
f6[n_, k_, 1] := 0
DiscretePlot[f6[n, 0, n], {n, 2, 100}]
```



Part[V, 1]

- 1

 $\label{eq:fin_k_j} \texttt{f7}[\texttt{n}\_\texttt{,} \texttt{k}\_\texttt{,} \texttt{j}\_\texttt{]} := -\texttt{Part}[\texttt{V}, \texttt{k}] \; \texttt{Simplify}[\texttt{MangoldtLambda}[\texttt{j}] \; / \; \texttt{Log}[\texttt{j}]] \;$ f7[n/j, k+1, Floor[n/j]] + f7[n, k, j-1]f7[n\_, k\_, 1] := 0 DiscretePlot[f7[n, 1, n], {n, 2, 100}]



f7[n, 1, n] - f7[n - 1, 1, n - 1]

\$Aborted