```
Clear[g1]
bin[z_{,k_{]}} := Product[z - j, {j, 0, k - 1}] / k!
FI[n_] := FactorInteger[n]; FI[1] := {}
dz[n_{-}, z_{-}] := dz[n, z] = Product[(-1)^p[[2]] Binomial[-z, p[[2]]], {p, FI[n]}]
g1[n_{,k_{|}} := g1[n,k] = Sum[dz[a^2,2]g1[Floor[n/a],k-1],{a,1,n}]
g1[n_, 0] := UnitStep[n - 1]
g2[n_{,k_{]}} := Sum[(-1)^{(k-j)}bin[k,j]g1[n,j],{j,0,k}]
lg[n_] := Sum[(-1)^(k+1)/kg2[n,k], \{k, 1, Log2@n\}]
kk[n_{-}] := kk[n] = FullSimplify[MangoldtLambda[n] / Log[n]]
pr[n_, s_] := Sum[kk[j] j^s, {j, 2, n}]
ts[n_] := 3 pr[n, 0] - pr[n^{(1/2)}, 0]
DiscretePlot[lg[n], {n, 1, 100}]
1.0
0.5
            20
                      40
                                                    100
                                60
                                          80
-0.5
-1.0
Clear[g1]
bin[z_{,k_{]}} := Product[z - j, {j, 0, k - 1}] / k!
FI[n_] := FactorInteger[n]; FI[1] := {}
dz[n_{z}] := dz[n, z] = Product[(-1)^p[[2]] Binomial[-z, p[[2]]], {p, FI[n]}]
g1[n_{,k_{|}} := g1[n, k] = Sum[dz[a, 2]g1[Floor[n/a], k-1], {a, 1, n}]
g1[n_, 0] := UnitStep[n - 1]
g2[n_{,k_{]}} := Sum[(-1)^{(k-j)}bin[k,j]g1[n,j],{j,0,k}]
lg[n_] := Sum[(-1)^(k+1)/kg2[n,k], \{k, 1, Log2@n\}]
kk[n_] := kk[n] = FullSimplify[MangoldtLambda[n] / Log[n]]
pr[n_{,s_{|}} := Sum[kk[j] j^s, {j, 2, n}]
ts[n_] := 3pr[n, 0] - pr[n^{(1/2)}, 0]
```

## ${\tt DiscretePlot[lg[n],\{n,1,100\}]}$

