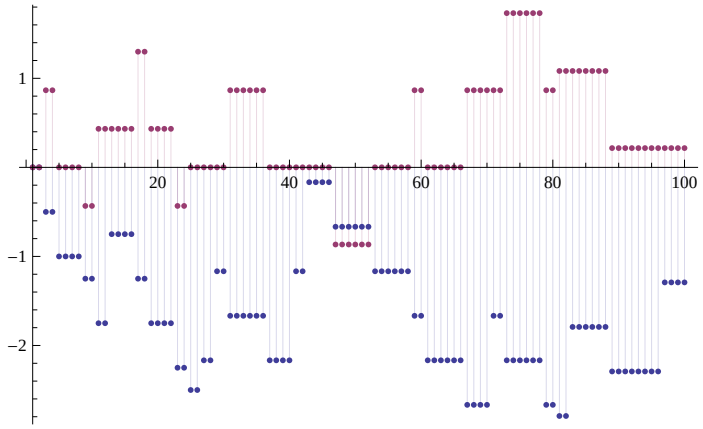
```
Clear[f]
a[n_] := DirichletCharacter[14, 3, n]
f[n_, k_] := f[n, k] = Sum[ a[j] f[Floor[n / j], k - 1], {j, 2, n}]
f[n_, 0] := UnitStep[n - 1]
lf[n_] := Sum[ (-1)^(k + 1) / k f[n, k], {k, 1, Log2@n}]
DiscretePlot[{ Re[lf[n]], Im[lf[n]]}, {n, 1, 100}]
Table[{ n, N@Re[lf[n] - lf[n - 1]], N@Im[lf[n] - lf[n - 1]]}, {n, 1, 40}]
```




```
{{1, 0., 0.}, {2, 0., 0.}, {3, -0.5, 0.866025}, {4, 0., 0.}, {5, -0.5, -0.866025},
 {6, 0., 0.}, {7, 0., 0.}, {8, 0., 0.}, {9, -0.25, -0.433013}, {10, 0., 0.},
 {11, -0.5, 0.866025}, {12, 0., 0.}, {13, 1., 0.}, {14, 0., 0.}, {15, 0., 0.},
 {16, 0., 0.}, {17, -0.5, 0.866025}, {18, 0., 0.}, {19, -0.5, -0.866025}, {20, 0., 0.},
 {21, 0., 0.}, {22, 0., 0.}, {23, -0.5, -0.866025}, {24, 0., 0.}, {25, -0.25, 0.433013},
 {26, 0., 0.}, {27, 0.333333, 0.}, {28, 0., 0.}, {29, 1., 0.}, {30, 0., 0.},
 {31, -0.5, 0.866025}, {32, 0., 0.}, {33, 0., 0.}, {34, 0., 0.}, {35, 0., 0.},
 {36, 0., 0.}, {37, -0.5, -0.866025}, {38, 0., 0.}, {39, 0., 0.}, {40, 0., 0.}}
```

```
N@lf[100]
```

```
-1.29167 + 0.216506 i
```

```
Sum[ N@(a[j] MangoldtLambda[j] / Log[j]), {j, 2, 100}]
```

```
-1.29167 + 0.216506 i
```