

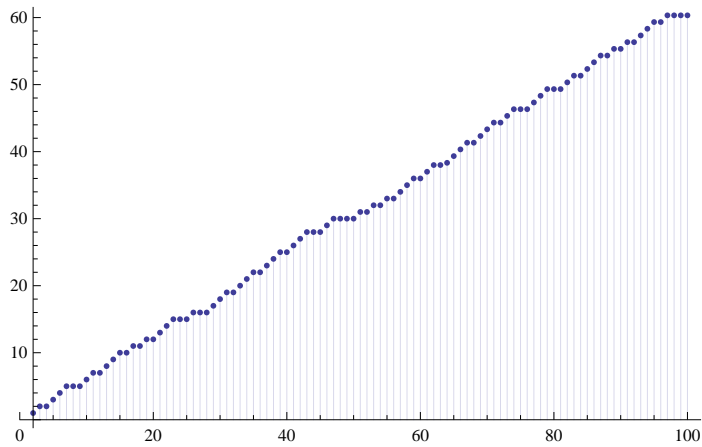
```

FF[n_, k_] := FF[n, k] =
  If[ MangoldtLambda[n] == 0, 0,
    If[ MangoldtLambda[n] / Log[n] == 1, 1,
      N[If[ Mod[N[Log[n] / MangoldtLambda[n]], 2] == 0,
        (MangoldtLambda[n] / Log[n]) k, Abs[k] MangoldtLambda[n] / Log[n]]]]]

GG[n_, k_, a_, s_] :=
  GG[n, k, a, s] = Sum[ s FF[j, a] (1 / (k!)) + GG[Floor[n / j], k + 1, a, s], {j, 2, n}]

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

```



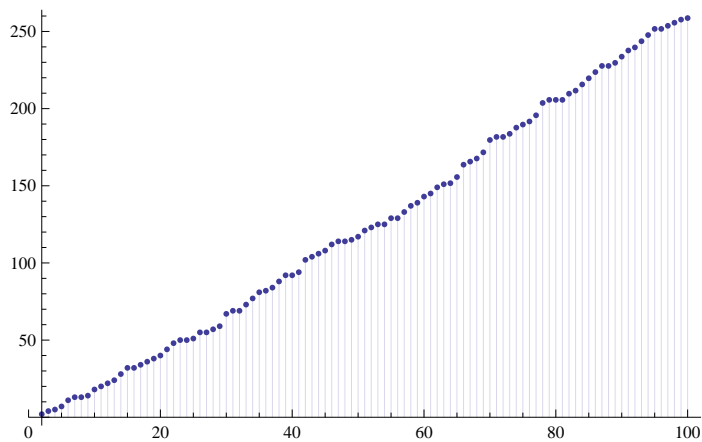
```

Table[ GG[n, 1, 0, 1], {n, 2, 20}]

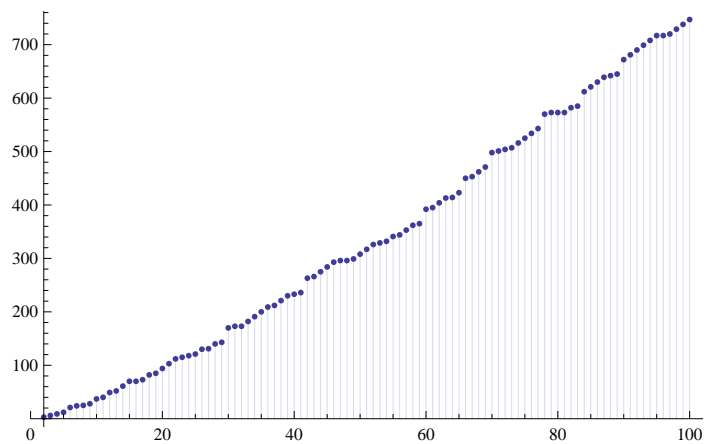
{1, 2, 2.5, 3.5, 4.5, 5.5, 5.66667, 6.16667, 7.16667, 8.16667, 8.66667,
  9.66667, 10.6667, 11.6667, 11.7083, 12.7083, 13.2083, 14.2083, 14.7083}

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

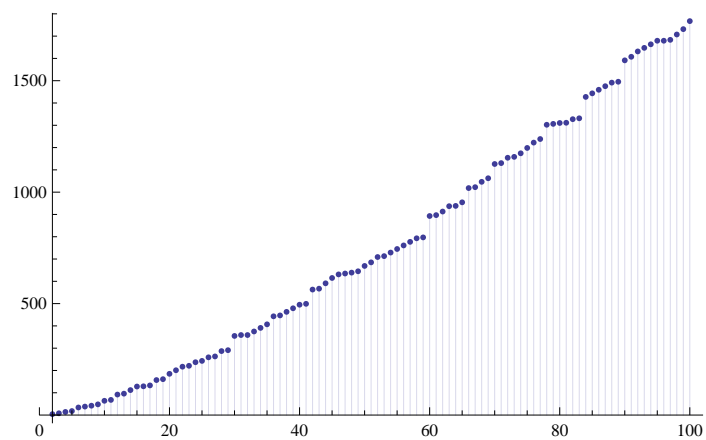
```



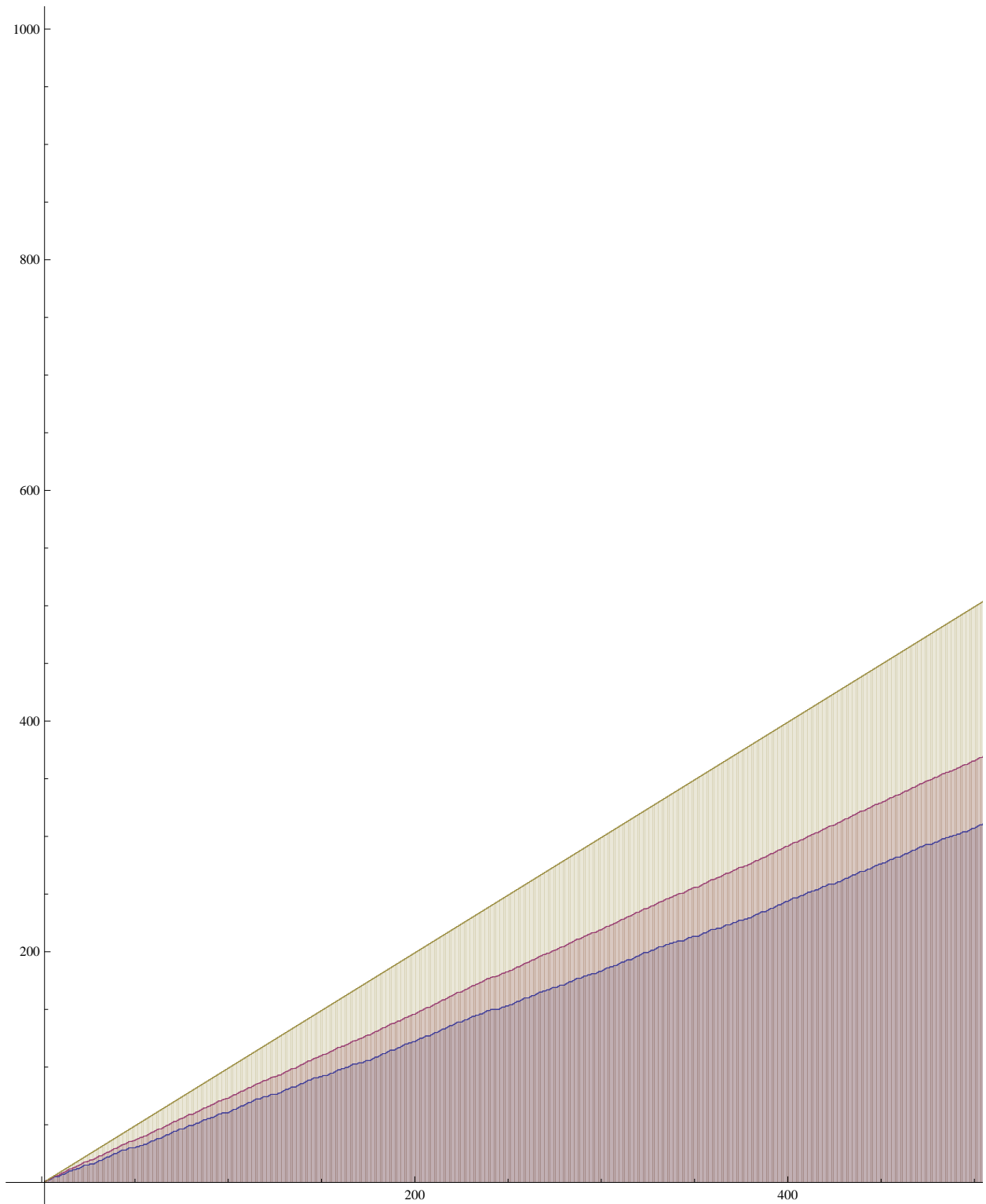
```
DiscretePlot[GG[n, 1, -1, 3], {n, 2, 100}]
```



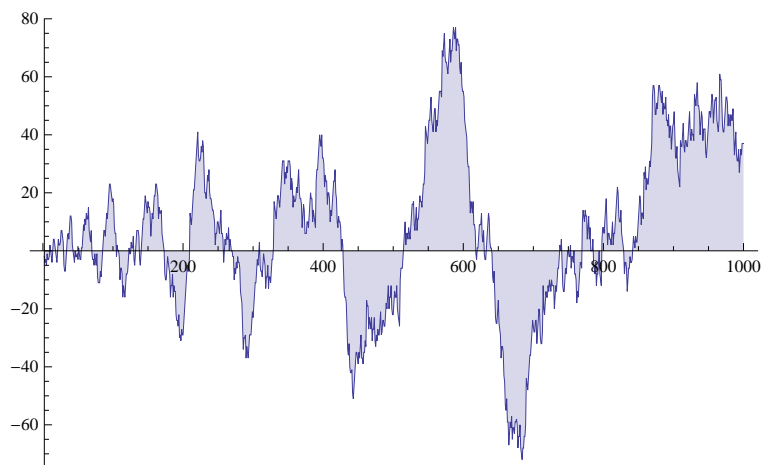
```
DiscretePlot[GG[n, 1, -1, 4], {n, 2, 100}]
```



```
DiscretePlot[{GG[n, 1, -1, 1], GG[n, 1, 0, 1], GG[n, 1, 1, 1]},  
{n, 2, 1000}, ExtentSize -> Full]
```



```
DiscretePlot[ GG[n, 1, 1, -2], {n, 2, 1000}]
```



```
HH[n_] := Sum[ MoebiusMu[j] Floor[ n^(1 / j)] / j, {j, 1, N[Log[n] + .00000001] / N[Log[2]]}]
```

```
N[HH[100]]
```

```
93.6
```

```
HHH[n_] := HH[n] - HH[n - 1]
```

```
Table[HHH[n], {n, 2, 30}]
```

```
{2, 1, 0, 1, 1, 1, 1, 1/3, 1/2, 1, 1, 1, 1, 1, 1, 1, 1/2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1/2, 1, 2/3, 1, 1, 1}
```

```
HHH[2 * 2 * 2 * 2 * 2 * 2 * 2 * 2 * 2 * 2 * 2 * 2]
```

```
1/3
```