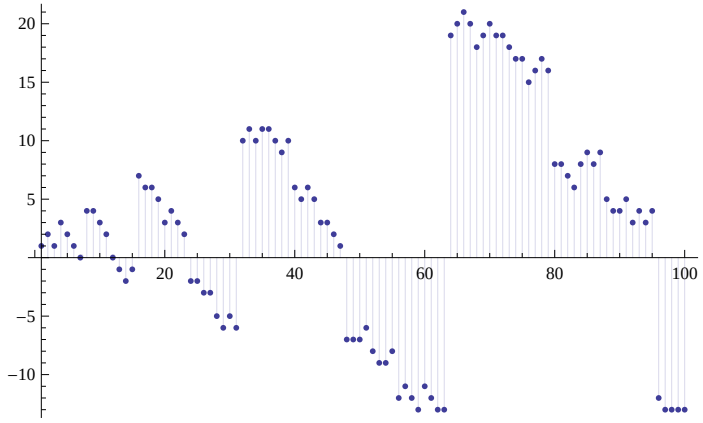
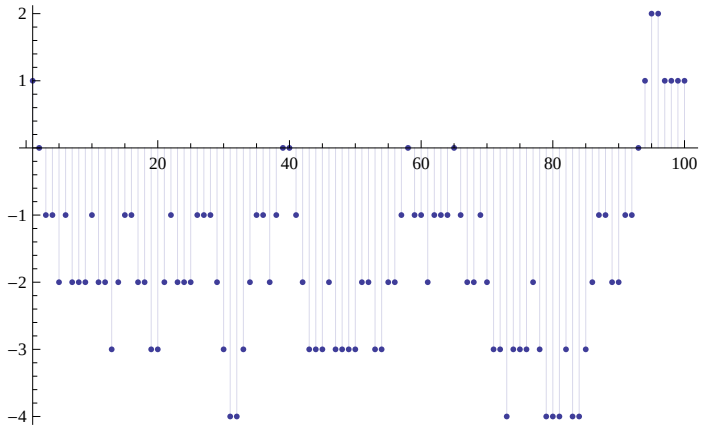
```
D2a[n_, k_] := D2a[n, k] = Sum[D2a[Floor[n / j], k - 1], {j, 2, n}]; D2a[n_, 0] := 1
DD[n_, z_] := DD[n, z] = Sum[FactorialPower[z, a] / a! D2a[n, a], {a, 0, Log[2, n]}]
d[n_, z_] := Product[(-1)^p[[2]] Binomial[-z, p[[2]]], {p, FI[n]}];
FI[n_] := FactorInteger[n]; FI[1] := {}
RefererenceD[n_, z_] := Sum[d[j, z], {j, 1, n}]
E2a[n_, k_, a_] :=
 E2a[n, k, a] = Sum[ E2a[n / j, k - 1, a], {j, 2, n}] - a Sum[ E2a[n / (a j), k - 1, a], {j, 1, n / a}];
E2a[n_, 0, a_] := 1
EE[n_, z_, b_] :=
 EE[n, z, b] = Sum[FactorialPower[z, a] / a! E2a[n, a, b], {a, 0, Log[If[b > 2, 2, b], n]}]
EAlt[ n_, z_, b_] :=
 Sum[ (-1)^j Binomial[z, j] b^j RefererenceD[ n / (b^j), z], {j, 0, Log[b, n]}]
DAlt[ n_, z_, b_] := Sum[ (-1)^j Binomial[-z, j] b^j EE[ n / (b^j), z, b], {j, 0, Log[b, n]}]
Enull[ n_, z_, b_] := Sum[ (-1)^j Binomial[z, j] b^j Dnull[ n / (b^j), z], {j, 0, Log[b, n]}]
Dnll[ n_, z_, b_] :=
 Sum[ (-1)^j Binomial[-z, j] b^j Enll[ n / (b^j), z, b], {j, 0, Log[b, n]}]
```

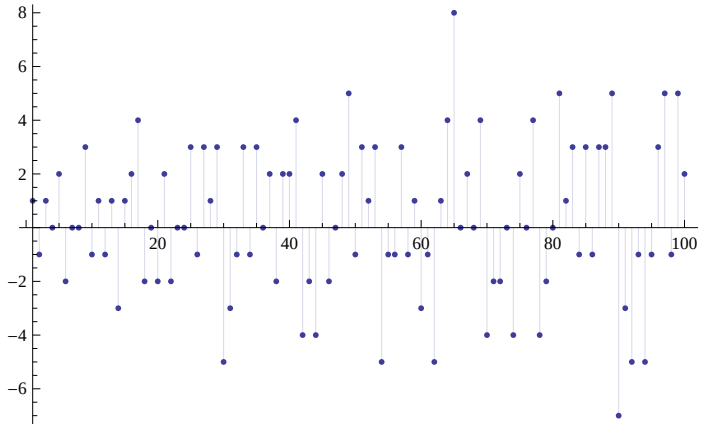
```
DiscretePlot[ EE[n, -1, 2], {n, 1, 100}]
```




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



```
DiscretePlot[ EAlt[n, 2, 2], {n, 1, 100}]
```




```
Enull[ 100, 2, 2]
```

```
4 Dnull[25, 2] − 4 Dnull[50, 2] + Dnull[100, 2]
```

```
Dnll[ 100, -1, 2]
```

```
−2 Enll[50, −1, 2] + Enll[100, −1, 2]
```