

```

Dhyp[n_, k_, a_] :=
  Sum[Binomial[k, j] Dhyp[n / (m^(k - j)), j, m + 1], {m, a, n^(1 / k)}, {j, 0, k - 1}]
Dhyp[n_, 1, a_] := Floor[n] - a + 1; Dhyp[n_, 0, a_] := 1

Dhyp[100, 2, 2]

283

F[n_, z_] := Sum[Binomial[z, k] Dhyp[n / 2^k, Floor[z] - k, 3], {k, 0, Floor[Log[3, n]]}]
Plot[F[100, z], {z, 0, 4}]

99

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