

```

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

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Dhyp[100, 2, 3]

```

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186

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g[n_, k_, a_] := Sum[Binomial[k, j] Dhyp[n / a^(k - j), j, 3], {j, 0, Log[3, n]}];
g[n_, 0, a_] := 1

```

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g[100, 3, 2]

```

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324

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Plot[g[100, n, 2], {n, 2, 3}]

```