

```

PrimitivesToFull[p_List] := Module[
  {lp, h, ser},
  lp = Length[p];
  ser = Normal[Series[ $\prod_{k=1}^{lp} \left(\frac{1}{1-h^k}\right)^{p[k]}$ , {h, 0, lp}]];
  Table[Coefficient[ser, h, i], {i, 0, lp}]
];
FullToPrimitives[{1}] = {};
FullToPrimitives[{1, mid___, last_}] := Module[{prev},
  prev = FullToPrimitives[{1, mid}];
  Append[
    prev,
    last - Last[PrimitivesToFull[Append[prev, 0]]]
  ]
];

dims = {1, 6, 24, 80, 241, 682, 1852}
{1, 6, 24, 80, 241, 682, 1852}

FullToPrimitives[dims]
{6, 3, 6, 10, 22, 39}

FullToPrimitives[2Range[0,7]]
{2, 1, 2, 3, 6, 9, 18}

3 FullToPrimitives[2Range[0,6]] + {0, 0, 0, 1, 4, 12}
{6, 3, 6, 10, 22, 39}

FullToPrimitives[3Range[0,6]]
{3, 3, 8, 18, 48, 116}

FullToPrimitives[4Range[0,6]]
{4, 6, 20, 60, 204, 670}

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