

```

In[1]:= << KnotTheory`
Loading KnotTheory` version of August 26, 2008, 13:57:21.1548.
Read more at http://katlas.org/wiki/KnotTheory.

In[2]:= ConantNumber[K_, k_] := Times[
  SeriesCoefficient[Log[Jones[K][E^x]], {x, 0, k}],
  {0, 1/3, 1/6, 4, 2, 40, 60, 6720, 672, 604800,
  302400, 2*13305600, 1140480, 14529715200, 36324288000}[[k]]
];
ConantSeries[K_] := Table[
  ConantNumber[K, k],
  {k, 2, 15}
];

```

```

In[4]:= ConantSeries[Knot[7, 1]]

```

KnotTheory::loading : Loading precomputed data in Jones4Knots`.

```

Out[4]= {-6, 14, -1602, 4046, -426342, 3466526, -2148333522,
  1207609942, -6185706967026, 17780518487102, -9070188073017414,
  2269107950592730, -169753078355859655026, 2504795074281616592854}

```

```

In[5]:= ConantSeries /@ AllKnots[{3, 7}] // MatrixForm

```

```

Out[5]/MatrixForm=
  (-1  1  -47  49  -2137  7189  -1843087  428597  -908223251  1080010
   1  0  -13  0   217    0   -69173    0   12613931    0
  -3  5  -405  725  -54171  312305  -137231685  54695065  -198646025913  4048592
  -2  3  -202  303  -19034  92187  -34026722  11392251  -34756664662  5950562
   2  -1  -38  59   314  -7729  640082  321607  -562783658  -387336
   1  -1  23  11  -1103  2111  152503  -110825  151011611  2680528
  -1  0  -35  0   -937    0  -489595  0  -145553051  0
  -6  14  -1602  4046  -426342  3466526  -2148333522  1207609942  -6185706967026  1778051
  -3  6  -513  966  -76491  467334  -217513593  91826958  -353269592433  7626650
  -5 -11 -1147 -2663 -258245 -1931459 -1101021227 -569288563 -2682299183815 -709208
  -4 -8  -740 -1544 -134308 -900632 -460394260 -213469768 -901939776764 -213851
  -4  8  -764  1604  -140428  948812  -488655724  228266452  -971667231284  2321054
  -1  2  -107  134  -7297  30038  -9425347  2690494  -6992631011  1019653
   1  1  -1  -23  -743  709  467839  45053  -82972429  -126943)

```

```

In[6]:= GCD @@@ Transpose[ConantSeries /@ AllKnots[{3, 7}]]

```

```

Out[6]= {1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1}

```

