

? Knot

Symbol

Knot[n, k] denotes the kth knot with n crossings in the Rolfsen table.
Knot[n, Alternating, k] (for n between
11 and 16) denotes the kth alternating n-crossing knot in
the Hoste–Thistlethwaite table. Knot[n, NonAlternating, k] denotes the
kth non alternating n-crossing knot in the Hoste–Thistlethwaite table.

Knot[n, Alternating | NonAlternating, k] is the most basic unit in this package .

Alexander[Knot[12, Alternating, 165]][\[x\]](#)

[KnotTheory/12A.dts](#) Loading precomputed data.

The GaussCode to PD conversion was written

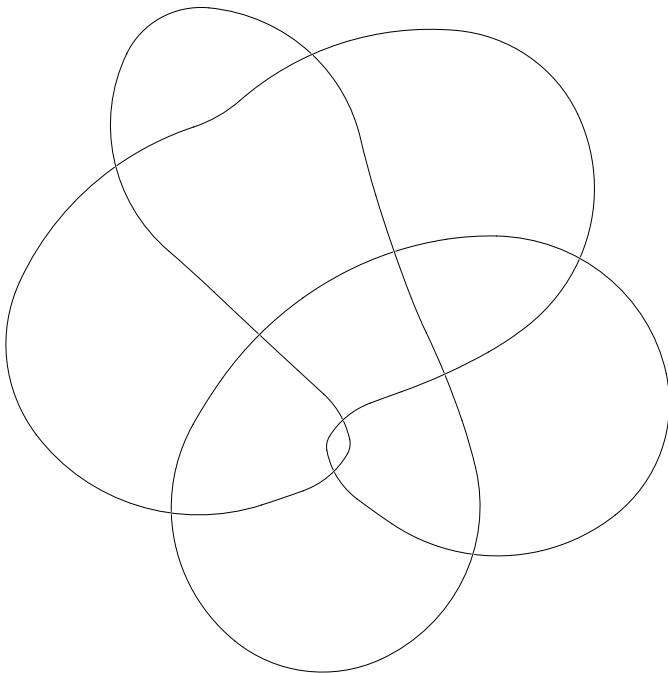
by Siddarth Sankaran at the University of Toronto in the summer of 2005.

$$31 - \frac{2}{x^3} + \frac{11}{x^2} - \frac{24}{x} - 24x + 11x^2 - 2x^3$$

From $n = 3 \rightarrow 10$ you can use simpler form Knot[n,k]

Show[DrawPD[Knot[10, 165]]]

DrawPD was written by Emily Redelmeier at the University of Toronto in the summers of 2003 and 2004.



There is 1,7 million Knots and 5700 links

```
In[16]:= {<|"k" → #, "Number of knots" → (AllKnots[#] // Length),
          "Number of links" → (AllLinks[#] // Length)|> & /@ Range[3, 16] // Dataset
```

```
It[16]=
```

k	Number of knots	Number of links
3	1	0
4	1	1
5	2	1
6	3	6
7	7	9
8	21	29
9	49	83
10	165	287
11	552	1007
12	2176	4276
13	9988	1
14	46972	1
15	253293	1
16	1388705	1

Scratchpad

```
In[35]:= SetDirectory[FileNameJoin[{$UserBaseDirectory,
                                     "Autoload", "KnotTheory", "KnotTheoryKnowledgebase", "notebooks"}]];
```

```
In[36]:= NotebookSave[EvaluationNotebook[], "basic.nb"]
```

```
In[37]:= Export["basic.pdf", EvaluationNotebook[]]
```

```
It[34]=
```

basic.pdf

```
In[27]:= SystemOpen["basic.pdf"]
```

