\[ L = \text{Link["L7a6"];} \]
\[ H = \text{HOMFLYPT[PD[L]][a, z]} \]
KnotTheory: loading: Loading precomputed data in PD4Links'.
KnotTheory: credits: The HOMFLYPT program was written by Scott Morrison.
\[
\frac{1}{a^3 z} + \frac{1}{a z} + \frac{2 z}{a^5} - \frac{4 z}{a^3} + \frac{3 z}{a^5} - \frac{4 z^3}{a^3} + \frac{z}{a} - \frac{z^5}{a^3}
\]
\[
\left\{ \frac{a}{z} + \frac{a^3}{z} - 3 a z + 4 a^3 z - 2 a^5 z - a z^2 + 4 a^3 z^2 - a^5 z^3 + a^3 z^5, \right. \\
\left. \frac{a}{z} + \frac{a^3}{z} - 3 a z + 4 a^3 z - 2 a^5 z - a z^2 + 4 a^3 z^2 - a^5 z^3 + a^3 z^5 \right\}
\]
\[ U3 = \text{PD[Mirror[BR[3, \{1, -1, 2, -2, 1, -1, 2, -2\}]]]} \]
\[ \text{PD[X[4, 16, 1, 9], X[1, 10, 2, 9], X[10, 8, 11, 5], X[11, 6, 12, 5], X[2, 12, 3, 13], X[3, 14, 4, 13], X[14, 6, 15, 7], X[15, 8, 16, 7]} \]
\[ \text{DrawMorseLink[U3]} \]
KnotTheory: credits:
MorseLink was added to KnotTheory' by Siddarth at the University of Toronto in the summer of 2005.
KnotTheory: credits: DrawMorseLink was written by Siddarth Sankaran at the University of Toronto in the summer of 2005.

HOMFLYPT[U3][a, z] // Simplify
\[
\frac{(-1 + a^2)^2}{a^2 z^2}
\]
\[ l[L_\infty] := \text{Series[HOMFLYPT[L][E^(n x), E^x - 1 / E^x], \{x, 0, 1\}] } \]
\[ l[BR[2, \{1, 1, 1, 1, 1\}]] \]
\[ n + (6 - 6 n^2) x + o[x]^2 \]
1[BR[2, {1, -1, 1, -1, 1, -1}]]

n + O[x]^2

1[BR[2, {1, -1, 1, -1, 1, -1}]]

1

1[L]

n + (2 - 2 n^2) x + O[x]^2

DrawMorseLink[BR[2, {1, 1, 1, 1, 1}]]

BR[Knot[3, 1]]

KnotTheory::credits:

The minimum braids representing the knots with ... by Thomas Gittings. See arXiv:math.GT/0401051.

BR[2, {-1, -1, -1}]

DrawMorseLink[BR[Knot[3, 1]]]