

Pensieve header: A race between the slow Jones program and the fast Jones program.

```
<< KnotTheory`
```

```
Loading KnotTheory` version of September 6, 2014, 13:37:37.2841.
```

```
Read more at http://katlas.org/wiki/KnotTheory.
```

```
J[K_] := Module[{t1, t2, t3, t4, t5, t6, P},
  SetAttributes[P, Orderless];
  t1 = PD[K] /. x_X => If[PositiveQ[x], Xp@@x, Xm@@x];
  t2 = Times@@t1;
  t3 = t2 /. {
    Xp[i_, j_, k_, l_] => q * P[i, j] P[k, l] - q^2 * P[i, l] P[j, k],
    Xm[i_, j_, k_, l_] => -q^(-2) * P[i, j] P[k, l] + 1/q * P[i, l] P[j, k]
  };
  t4 = Expand[t3];
  t5 = t4 //. P[a_, b_] P[b_, c_] => P[a, c];
  t6 = t5 /. {
    P[i_, i_] => (q + 1/q),
    P[i_, j_]^2 => (q + 1/q)
  };
  Simplify[ $\frac{t6}{q + q^{-1}}$  /. q ->  $\sqrt{q}$ ]
]

FJ[K_] := Module[{todo, touched = {}, x, J = 1},
  SetAttributes[P, Orderless];
  todo = List@@PD[K] /. x_X => If[PositiveQ[x], Xp@@x, Xm@@x];
  While[Length[todo] > 0,
    x = First@MaximalBy[todo, Length[touched  $\cap$  (List@@#)] &];
    J *= x /. {
      Xp[i_, j_, k_, l_] => q * P[i, j] P[k, l] - q^2 * P[i, l] P[j, k],
      Xm[i_, j_, k_, l_] => -q^(-2) * P[i, j] P[k, l] + 1/q * P[i, l] P[j, k]
    };
    J = Expand[J] //. P[a_, b_] P[b_, c_] => P[a, c] /. {
      P[i_, i_] => (q + 1/q),
      P[i_, j_]^2 => (q + 1/q)
    };
    todo = DeleteCases[todo, x];
  ];
  Simplify[ $\frac{J}{q + q^{-1}}$  /. q ->  $\sqrt{q}$ ]
]
```

LaunchKernels[];
DistributeDefinitions /@ {"KnotTheory`", "Global`"}

KnotTheory: The minimum braids representing the knots with up to 10 crossings were provided by Thomas Gittings. See arXiv:math.GT/0401051.

Function: Slot number 2 in

```
Parallel`Kernels`Private`sendCatch[#, Parallel`Client`makeDefinitions[Language`DefinitionList[A2Invariant -> {OwnValues -> {},
SubValues -> {}, UpValues -> {}, DownValues -> {<<5>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {},
Messages -> {<<1>>}, Attributes -> {}], Knot -> {OwnValues -> {}, SubValues -> {}, UpValues -> {}, DownValues -> {<<8
>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {}, Messages -> {<<1>>}, Attributes -> {}}, <<48>>, <<217
>>]]] & cannot be filled from
```

```
(Parallel`Kernels`Private`sendCatch[#, Parallel`Client`makeDefinitions[Language`DefinitionList[A2Invariant -> {OwnValues -> {}
, SubValues -> {}, UpValues -> {}, DownValues -> {<<5>>}, NValues -> {}, FormatValues -> {}, DefaultValues ->
{}, Messages -> {<<1>>}, Attributes -> {}], Knot -> {OwnValues -> {}, SubValues -> {}, UpValues -> {},
DownValues -> {<<8>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {}, Messages -> {<<1>>}, Attributes ->
{}}, <<48>>, <<217>>]]] &)[KernelObject[1, local]].
```

Function: Slot number 2 in

```
Parallel`Kernels`Private`sendCatch[#, Parallel`Client`makeDefinitions[Language`DefinitionList[A2Invariant -> {OwnValues -> {},
SubValues -> {}, UpValues -> {}, DownValues -> {<<5>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {},
Messages -> {<<1>>}, Attributes -> {}], Knot -> {OwnValues -> {}, SubValues -> {}, UpValues -> {}, DownValues -> {<<8
>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {}, Messages -> {<<1>>}, Attributes -> {}}, <<48>>, <<217
>>]]] & cannot be filled from
```

```
(Parallel`Kernels`Private`sendCatch[#, Parallel`Client`makeDefinitions[Language`DefinitionList[A2Invariant -> {OwnValues -> {}
, SubValues -> {}, UpValues -> {}, DownValues -> {<<5>>}, NValues -> {}, FormatValues -> {}, DefaultValues ->
{}, Messages -> {<<1>>}, Attributes -> {}], Knot -> {OwnValues -> {}, SubValues -> {}, UpValues -> {},
DownValues -> {<<8>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {}, Messages -> {<<1>>}, Attributes ->
{}}, <<48>>, <<217>>]]] &)[KernelObject[1, local]].
```

Function: Slot number 2 in

```
Parallel`Kernels`Private`sendCatch[#, Parallel`Client`makeDefinitions[Language`DefinitionList[A2Invariant -> {OwnValues -> {},
SubValues -> {}, UpValues -> {}, DownValues -> {<<5>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {},
Messages -> {<<1>>}, Attributes -> {}], Knot -> {OwnValues -> {}, SubValues -> {}, UpValues -> {}, DownValues -> {<<8
>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {}, Messages -> {<<1>>}, Attributes -> {}}, <<48>>, <<217
>>]]] & cannot be filled from
```

```
(Parallel`Kernels`Private`sendCatch[#, Parallel`Client`makeDefinitions[Language`DefinitionList[A2Invariant -> {OwnValues -> {}
, SubValues -> {}, UpValues -> {}, DownValues -> {<<5>>}, NValues -> {}, FormatValues -> {}, DefaultValues ->
{}, Messages -> {<<1>>}, Attributes -> {}], Knot -> {OwnValues -> {}, SubValues -> {}, UpValues -> {},
DownValues -> {<<8>>}, NValues -> {}, FormatValues -> {}, DefaultValues -> {}, Messages -> {<<1>>}, Attributes ->
{}}, <<48>>, <<217>>]]] &)[KernelObject[1, local]].
```

General: Further output of Function::slotn will be suppressed during this calculation.

{{KnotTheory`}, {Global`}}

```

WaitAll[{
  ParallelSubmit[
    t0 = TimeUsed[];
    Do[
      {t1, J1} = Timing@J[K];
      Print["Slow Jones: ", {K, Length@PD[K], TimeUsed[] - t0, t1, J1}],
      {K, TorusKnots[100]}
    ]
  ],
  ParallelSubmit[
    t0 = TimeUsed[];
    Do[
      {t1, J1} = Timing@FJ[K];
      Print["Fast Jones: ", {K, Length@PD[K], TimeUsed[] - t0, t1, J1}],
      {K, TorusKnots[100]}
    ]
  ]
}]

```

Slow Jones: {KnotTheory`TorusKnot[3, 2], 3, 0.016, 0.015625, $q + q^3 - q^4$ }

Fast Jones: {KnotTheory`TorusKnot[3, 2], 3, 0.016, 0.015625, $q + q^3 - q^4$ }

Slow Jones: {KnotTheory`TorusKnot[5, 2], 5, 0.031, 0., $q^2 + q^4 - q^5 + q^6 - q^7$ }

Fast Jones: {KnotTheory`TorusKnot[5, 2], 5, 0.032, 0.015625, $q^2 + q^4 - q^5 + q^6 - q^7$ }

Slow Jones: {KnotTheory`TorusKnot[7, 2], 7, 0.062, 0.03125, $q^3 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10}$ }

Fast Jones: {KnotTheory`TorusKnot[7, 2], 7, 0.047, 0.015625, $q^3 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10}$ }

Slow Jones: {KnotTheory`TorusKnot[4, 3], 8, 0.141, 0.078125, $q^3 + q^5 - q^8$ }

Fast Jones: {KnotTheory`TorusKnot[4, 3], 8, 0.063, 0.015625, $q^3 + q^5 - q^8$ }

Fast Jones: {KnotTheory`TorusKnot[9, 2], 9, 0.079, 0.015625, $q^4 (1 + q^2 - q^3 + q^4 - q^5 + q^6 - q^7 + q^8 - q^9)$ }

Fast Jones: {KnotTheory`TorusKnot[5, 3], 10, 0.094, 0.015625, $q^4 + q^6 - q^{10}$ }

Fast Jones:

{KnotTheory`TorusKnot[11, 2], 11, 0.11, 0.015625, $-q^5 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11})$ }

Fast Jones: {KnotTheory`TorusKnot[13, 2], 13, 0.141,
0.03125, $-q^6 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13})$ }

Fast Jones: {KnotTheory`TorusKnot[7, 3], 14, 0.172, 0.03125, $q^6 + q^8 - q^{14}$ }

Fast Jones: {KnotTheory`TorusKnot[5, 4], 15, 0.266, 0.09375, $q^6 (1 + q^2 + q^4 - q^5 - q^7)$ }

Fast Jones: {KnotTheory`TorusKnot[15, 2], 15, 0.297,
0.03125, $-q^7 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15})$ }

Fast Jones: {KnotTheory`TorusKnot[8, 3], 16, 0.344, 0.046875, $q^7 + q^9 - q^{16}$ }

Fast Jones: {KnotTheory`TorusKnot[17, 2], 17, 0.391, 0.03125,
 $-q^8 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17})$ }

Fast Jones: {KnotTheory`TorusKnot[19, 2], 19, 0.422, 0.03125,
 $-q^9 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19})$ }

Slow Jones: {KnotTheory`TorusKnot[9, 2], 9, 0.406, 0.265625, $q^4 (1 + q^2 - q^3 + q^4 - q^5 + q^6 - q^7 + q^8 - q^9)$ }

Fast Jones: {KnotTheory`TorusKnot[10, 3], 20, 0.469, 0.046875, $q^9 + q^{11} - q^{20}$ }

Fast Jones: {KnotTheory`TorusKnot[7, 4], 21, 0.625, 0.15625, $-q^9 (-1 - q^2 - q^4 + q^5 - q^6 + q^7 + q^9)$ }

Fast Jones: {KnotTheory`TorusKnot[21, 2], 21, 0.672, 0.046875, $-q^{10} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21})$ }

Fast Jones: {KnotTheory`TorusKnot[11, 3], 22, 0.75, 0.078125, $q^{10} + q^{12} - q^{22}$ }

Slow Jones: {KnotTheory`TorusKnot[5, 3], 10, 0.797, 0.390625, $q^4 + q^6 - q^{10}$ }

Fast Jones: {KnotTheory`TorusKnot[23, 2], 23, 0.813, 0.046875, $-q^{11} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23})$ }

Fast Jones: {KnotTheory`TorusKnot[6, 5], 24, 1.329, 0.515625, $q^{10} (1 + q^2 + q^4 - q^7 - q^9)$ }

Fast Jones: {KnotTheory`TorusKnot[25, 2], 25, 1.391, 0.0625, $-q^{12} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25})$ }

Fast Jones: {KnotTheory`TorusKnot[13, 3], 26, 1.485, 0.09375, $q^{12} + q^{14} - q^{26}$ }

Fast Jones: {KnotTheory`TorusKnot[9, 4], 27, 1.735, 0.25, $-q^{12} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 + q^{11})$ }

Fast Jones: {KnotTheory`TorusKnot[27, 2], 27, 1.797, 0.0625, $-q^{13} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27})$ }

Slow Jones: {KnotTheory`TorusKnot[11, 2], 11, 2.125, 1.32813, $-q^5 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11})$ }

Fast Jones: {KnotTheory`TorusKnot[7, 5], 28, 2.594, 0.796875, $q^{12} (1 + q^2 + q^4 - q^8 - q^{10})$ }

Fast Jones: {KnotTheory`TorusKnot[14, 3], 28, 2.719, 0.125, $q^{13} + q^{15} - q^{28}$ }

Fast Jones: {KnotTheory`TorusKnot[29, 2], 29, 2.797, 0.078125, $-q^{14} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29})$ }

Fast Jones: {KnotTheory`TorusKnot[31, 2], 31, 2.891, 0.078125, $-q^{15} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31})$ }

Fast Jones: {KnotTheory`TorusKnot[8, 5], 32, 4.047, 1.15625, $q^{14} (1 + q^2 + q^4 - q^9 - q^{11})$ }

Fast Jones: {KnotTheory`TorusKnot[16, 3], 32, 4.204, 0.140625, $q^{15} + q^{17} - q^{32}$ }

Fast Jones: {KnotTheory`TorusKnot[11, 4], 33, 4.61, 0.40625, $-q^{15} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} + q^{13})$ }

Fast Jones: {KnotTheory`TorusKnot[33, 2], 33, 4.704, 0.078125, $-q^{16} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33})$ }

Fast Jones: {KnotTheory`TorusKnot[17, 3], 34, 4.844, 0.140625, $q^{16} + q^{18} - q^{34}$ }

Fast Jones: {KnotTheory`TorusKnot[7, 6], 35, 8.532, 3.67188, $-q^{15} (-1 - q^2 - q^4 - q^6 + q^7 + q^9 + q^{11})$ }

Fast Jones: {KnotTheory`TorusKnot[35, 2], 35, 8.625, 0.09375, $-q^{17} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35})$ }

Slow Jones: {KnotTheory`TorusKnot [13, 2], 13, 9.984,
7.85938, $-q^6 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13})$ }

Fast Jones: {KnotTheory`TorusKnot [9, 5], 36, 10.063, 1.42188, $q^{16} + q^{18} + q^{20} - q^{26} - q^{28}$ }

Fast Jones: {KnotTheory`TorusKnot [37, 2], 37, 10.172, 0.109375,
 $-q^{18} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} -$
 $q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37})$ }

Fast Jones: {KnotTheory`TorusKnot [19, 3], 38, 10.36, 0.1875, $q^{18} + q^{20} - q^{38}$ }

Fast Jones: {KnotTheory`TorusKnot [13, 4], 39, 10.907,
0.546875, $-q^{18} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} + q^{15})$ }

Fast Jones: {KnotTheory`TorusKnot [39, 2], 39, 11.032, 0.125,
 $-q^{19} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} +$
 $q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39})$ }

Fast Jones: {KnotTheory`TorusKnot [20, 3], 40, 11.25, 0.203125, $q^{19} + q^{21} - q^{40}$ }

Fast Jones: {KnotTheory`TorusKnot [41, 2], 41, 11.391, 0.140625,
 $-q^{20} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} -$
 $q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41})$ }

Fast Jones:
{KnotTheory`TorusKnot [43, 2], 43, 11.563, 0.15625, $-q^{21} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 -$
 $q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} +$
 $q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43})$ }

Fast Jones: {KnotTheory`TorusKnot [11, 5], 44, 14.047, 2.48438, $q^{20} + q^{22} + q^{24} - q^{32} - q^{34}$ }

Fast Jones: {KnotTheory`TorusKnot [22, 3], 44, 14.313, 0.234375, $q^{21} + q^{23} - q^{44}$ }

Fast Jones: {KnotTheory`TorusKnot [15, 4], 45, 15.016, 0.703125,
 $-q^{21} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} + q^{17})$ }

Fast Jones:
{KnotTheory`TorusKnot [45, 2], 45, 15.188, 0.171875, $-q^{22} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 -$
 $q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} -$
 $q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45})$ }

Fast Jones: {KnotTheory`TorusKnot [23, 3], 46, 15.469, 0.28125, $q^{22} + q^{24} - q^{46}$ }

Fast Jones:
{KnotTheory`TorusKnot [47, 2], 47, 15.672, 0.1875, $-q^{23} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} +$
 $q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} -$
 $q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47})$ }

Slow Jones: {KnotTheory`TorusKnot [7, 3], 14, 20.703, 10.7188, $q^6 + q^8 - q^{14}$ }

Slow Jones: {KnotTheory`TorusKnot [5, 4], 15, 44.328, 23.625, $q^6 (1 + q^2 + q^4 - q^5 - q^7)$ }

Fast Jones: {KnotTheory`TorusKnot [8, 7], 48, 46.204, 30.5156, $q^{21} (1 + q^2 + q^4 + q^6 - q^9 - q^{11} - q^{13})$ }

Fast Jones: {KnotTheory`TorusKnot [12, 5], 48, 49.063, 2.84375, $q^{22} + q^{24} + q^{26} - q^{35} - q^{37}$ }

Fast Jones:
{KnotTheory`TorusKnot [49, 2], 49, 49.25, 0.1875, $-q^{24} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} -$
 $q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} +$
 $q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49})$ }

Fast Jones: { KnotTheory`TorusKnot [25, 3], 50, 49.594, 0.34375, $q^{24} + q^{26} - q^{50}$ }

Fast Jones: { KnotTheory`TorusKnot [17, 4], 51, 50.579, 0.984375, $-q^{24} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} + q^{19})$ }

Fast Jones: { KnotTheory`TorusKnot [51, 2], 51, 50.782, 0.203125, $-q^{25} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51})$ }

Fast Jones: { KnotTheory`TorusKnot [13, 5], 52, 54.407, 3.60938, $q^{24} + q^{26} + q^{28} - q^{38} - q^{40}$ }

Fast Jones: { KnotTheory`TorusKnot [26, 3], 52, 54.766, 0.34375, $q^{25} + q^{27} - q^{52}$ }

Fast Jones: { KnotTheory`TorusKnot [53, 2], 53, 54.969, 0.203125, $-q^{26} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53})$ }

Slow Jones: { KnotTheory`TorusKnot [15, 2], 15, 99.594, 55.2656, $-q^7 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15})$ }

Fast Jones: { KnotTheory`TorusKnot [9, 7], 54, 100.25, 45.2656, $q^{24} (1 + q^2 + q^4 + q^6 - q^{10} - q^{12} - q^{14})$ }

Fast Jones: { KnotTheory`TorusKnot [11, 6], 55, 114.516, 14.25, $-q^{25} (-1 - q^2 - q^4 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} + q^{13} + q^{15})$ }

Fast Jones: { KnotTheory`TorusKnot [55, 2], 55, 114.766, 0.234375, $-q^{27} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55})$ }

Fast Jones: { KnotTheory`TorusKnot [14, 5], 56, 119.25, 4.46875, $q^{26} + q^{28} + q^{30} - q^{41} - q^{43}$ }

Fast Jones: { KnotTheory`TorusKnot [28, 3], 56, 119.657, 0.40625, $q^{27} + q^{29} - q^{56}$ }

Fast Jones: { KnotTheory`TorusKnot [19, 4], 57, 120.86, 1.20313, $-q^{27} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} + q^{21})$ }

Fast Jones: { KnotTheory`TorusKnot [57, 2], 57, 121.11, 0.25, $-q^{28} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57})$ }

Fast Jones: { KnotTheory`TorusKnot [29, 3], 58, 121.61, 0.5, $q^{28} + q^{30} - q^{58}$ }

Fast Jones: { KnotTheory`TorusKnot [59, 2], 59, 121.891, 0.28125, $-q^{29} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59})$ }

Slow Jones: { KnotTheory`TorusKnot [8, 3], 16, 157.609, 58.0156, $q^7 + q^9 - q^{16}$ }

Fast Jones: { KnotTheory`TorusKnot [10, 7], 60, 181.516, 59.625, $q^{27} (1 + q^2 + q^4 + q^6 - q^{11} - q^{13} - q^{15})$ }

Fast Jones: { KnotTheory`TorusKnot [61, 2], 61, 181.797, 0.265625, $-q^{30} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61})$ }

Fast Jones: {KnotTheory`TorusKnot[31, 3], 62, 182.282, 0.46875, $q^{30} + q^{32} - q^{62}$ }

Slow Jones: {KnotTheory`TorusKnot[17, 2], 17, 419.484, 261.875,
 $-q^8 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17})$ }

Fast Jones:

{KnotTheory`TorusKnot[9, 8], 63, 426.985, 244.703, $-q^{28} (-1 - q^2 - q^4 - q^6 - q^8 + q^9 + q^{11} + q^{13} + q^{15})$ }

Fast Jones: {KnotTheory`TorusKnot[21, 4], 63, 428.563, 1.57813,

$-q^{30} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} + q^{23})$ }

Fast Jones:

{KnotTheory`TorusKnot[63, 2], 63, 428.875, 0.296875, $-q^{31} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63})$ }

Fast Jones: {KnotTheory`TorusKnot[16, 5], 64, 434.563, 5.67188, $q^{30} + q^{32} + q^{34} - q^{47} - q^{49}$ }

Fast Jones: {KnotTheory`TorusKnot[32, 3], 64, 435.125, 0.546875, $q^{31} + q^{33} - q^{64}$ }

Fast Jones: {KnotTheory`TorusKnot[13, 6], 65, 455.704,

20.5625, $-q^{30} (-1 - q^2 - q^4 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} + q^{15} + q^{17})$ }

Fast Jones:

{KnotTheory`TorusKnot[65, 2], 65, 456.047, 0.328125, $-q^{32} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65})$ }

Fast Jones: {KnotTheory`TorusKnot[11, 7], 66, 541.641, 85.5781, $q^{30} (1 + q^2 + q^4 + q^6 - q^{12} - q^{14} - q^{16})$ }

Fast Jones:

{KnotTheory`TorusKnot[67, 2], 67, 542., 0.34375, $-q^{33} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67})$ }

Fast Jones: {KnotTheory`TorusKnot[17, 5], 68, 548.563, 6.5625, $q^{32} + q^{34} + q^{36} - q^{50} - q^{52}$ }

Fast Jones: {KnotTheory`TorusKnot[34, 3], 68, 549.157, 0.578125, $q^{33} + q^{35} - q^{68}$ }

Fast Jones:

{KnotTheory`TorusKnot[23, 4], 69, 551.141, 1.96875, $-q^{33} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} + q^{25})$ }

Fast Jones: {KnotTheory`TorusKnot[69, 2], 69, 551.516, 0.359375,

$-q^{34} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69})$ }

Fast Jones: {KnotTheory`TorusKnot[35, 3], 70, 552.141, 0.609375, $q^{34} + q^{36} - q^{70}$ }

Fast Jones: {KnotTheory`TorusKnot[71, 2], 71, 552.532, 0.375,

$-q^{35} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71})$ }

Fast Jones: {KnotTheory`TorusKnot[12, 7], 72, 652.938, 100.406, $q^{33} (1 + q^2 + q^4 + q^6 - q^{13} - q^{15} - q^{17})$ }

Fast Jones: {KnotTheory`TorusKnot[18, 5], 72, 660.407, 7.45313, $q^{34} + q^{36} + q^{38} - q^{53} - q^{55}$ }

Fast Jones: {KnotTheory`TorusKnot[73, 2], 73, 660.797, 0.375,
 $-q^{36} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} -$
 $q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} -$
 $q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} -$
 $q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73})$ }

Fast Jones: {KnotTheory`TorusKnot[37, 3], 74, 661.5, 0.703125, $q^{36} + q^{38} - q^{74}$ }

Fast Jones:

{KnotTheory`TorusKnot[25, 4], 75, 663.657, 2.14063, $-q^{36} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} +$
 $q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} + q^{27})$ }

Fast Jones: {KnotTheory`TorusKnot[75, 2], 75, 664.11, 0.4375,
 $-q^{37} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} +$
 $q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} -$
 $q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} -$
 $q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75})$ }

Fast Jones: {KnotTheory`TorusKnot[19, 5], 76, 672.969, 8.84375, $q^{36} + q^{38} + q^{40} - q^{56} - q^{58}$ }

Fast Jones: {KnotTheory`TorusKnot[38, 3], 76, 673.672, 0.703125, $q^{37} + q^{39} - q^{76}$ }

Fast Jones: {KnotTheory`TorusKnot[11, 8], 77,
 1100.22, 426.516, $-q^{35} (-1 - q^2 - q^4 - q^6 - q^8 + q^9 - q^{10} + q^{11} + q^{13} + q^{15} + q^{17})$ }

Fast Jones: {KnotTheory`TorusKnot[77, 2], 77, 1100.67, 0.4375,
 $-q^{38} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} -$
 $q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} +$
 $q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} -$
 $q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75} - q^{76} + q^{77})$ }

Fast Jones: {KnotTheory`TorusKnot[13, 7], 78, 1223.78, 123.094, $q^{36} (1 + q^2 + q^4 + q^6 - q^{14} - q^{16} - q^{18})$ }

Fast Jones: {KnotTheory`TorusKnot[79, 2], 79, 1224.19, 0.40625,
 $-q^{39} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} -$
 $q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} -$
 $q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} +$
 $q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79})$ }

Slow Jones: {KnotTheory`TorusKnot[19, 2], 19, 1841.77, 1422.28,
 $-q^9 (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19})$ }

Fast Jones:

{KnotTheory`TorusKnot[10, 9], 80, 2921.95, 1697.75, $q^{36} (1 + q^2 + q^4 + q^6 + q^8 - q^{11} - q^{13} - q^{15} - q^{17})$ }

Fast Jones: {KnotTheory`TorusKnot[40, 3], 80, 2922.8, 0.828125, $q^{39} + q^{41} - q^{80}$ }

Fast Jones:

{KnotTheory`TorusKnot[27, 4], 81, 2925.17, 2.35938, $-q^{39} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} +$
 $q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} + q^{29})$ }

Fast Jones: {KnotTheory`TorusKnot[81, 2], 81, 2925.69, 0.5,
 $-q^{40} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} -$
 $q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} -$
 $q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} -$
 $q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81}) }$

Fast Jones: {KnotTheory`TorusKnot[41, 3], 82, 2926.55, 0.84375, $q^{40} + q^{42} - q^{82}$ }

Fast Jones:

{KnotTheory`TorusKnot[83, 2], 83, 2927.08, 0.515625, $-q^{41} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} +$
 $q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} -$
 $q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} -$
 $q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} -$
 $q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81} - q^{82} + q^{83}) }$

Fast Jones: {KnotTheory`TorusKnot[21, 5], 84, 2938.33, 11.2344, $q^{40} + q^{42} + q^{44} - q^{62} - q^{64}$ }

Fast Jones: {KnotTheory`TorusKnot[17, 6], 85, 2979.24, 40.8906,
 $-q^{40} (-1 - q^2 - q^4 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} + q^{19} + q^{21}) }$

Fast Jones: {KnotTheory`TorusKnot[85, 2], 85, 2979.8, 0.546875,
 $-q^{42} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} -$
 $q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} +$
 $q^{35} - q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} -$
 $q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} +$
 $q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81} - q^{82} + q^{83} - q^{84} + q^{85}) }$

Fast Jones: {KnotTheory`TorusKnot[43, 3], 86, 2980.78, 0.984375, $q^{42} + q^{44} - q^{86}$ }

Fast Jones:

{KnotTheory`TorusKnot[29, 4], 87, 2983.67, 2.85938, $-q^{42} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} -$
 $q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} + q^{31}) }$

Fast Jones: {KnotTheory`TorusKnot[87, 2], 87, 2984.25, 0.5625,
 $-q^{43} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} +$
 $q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} -$
 $q^{36} + q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} +$
 $q^{53} - q^{54} + q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} +$
 $q^{71} - q^{72} + q^{73} - q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81} - q^{82} + q^{83} - q^{84} + q^{85} - q^{86} + q^{87}) }$

Slow Jones: {KnotTheory`TorusKnot[10, 3], 20, 3418.19, 1576.42, $q^9 + q^{11} - q^{20}$ }

Fast Jones:

{KnotTheory`TorusKnot[11, 9], 88, 5156.74, 2172.45, $q^{40} (1 + q^2 + q^4 + q^6 + q^8 - q^{12} - q^{14} - q^{16} - q^{18}) }$

Fast Jones: {KnotTheory`TorusKnot[22, 5], 88, 5174.56, 17.8125, $q^{42} + q^{44} + q^{46} - q^{65} - q^{67}$ }

Fast Jones: {KnotTheory`TorusKnot[44, 3], 88, 5175.83, 1.25, $q^{43} + q^{45} - q^{88}$ }

Fast Jones: {KnotTheory`TorusKnot[89, 2], 89, 5176.63, 0.78125,
 $-q^{44} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} +$
 $q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} +$
 $q^{37} - q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} +$
 $q^{55} - q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} +$
 $q^{73} - q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81} - q^{82} + q^{83} - q^{84} + q^{85} - q^{86} + q^{87} - q^{88} + q^{89}) }$

Fast Jones: {KnotTheory`TorusKnot[15, 7], 90, 5400.49, 223.844, $q^{42} (1 + q^2 + q^4 + q^6 - q^{16} - q^{18} - q^{20}) }$

Fast Jones: { KnotTheory`TorusKnot [13, 8], 91, 6130.42,
729.906, $-q^{42} (-1 - q^2 - q^4 - q^6 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} + q^{15} + q^{17} + q^{19})$ }

Fast Jones: { KnotTheory`TorusKnot [91, 2], 91, 6131.08, 0.640625,
 $-q^{45} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} -$
 $q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} -$
 $q^{38} + q^{39} - q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} -$
 $q^{56} + q^{57} - q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} -$
 $q^{74} + q^{75} - q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81} - q^{82} + q^{83} - q^{84} + q^{85} - q^{86} + q^{87} - q^{88} + q^{89} - q^{90} + q^{91})$ }

Fast Jones: { KnotTheory`TorusKnot [23, 5], 92, 6143.59, 12.5, $q^{44} + q^{46} + q^{48} - q^{68} - q^{70}$ }

Fast Jones: { KnotTheory`TorusKnot [46, 3], 92, 6144.75, 1.15625, $q^{45} + q^{47} - q^{92}$ }

Fast Jones: { KnotTheory`TorusKnot [31, 4], 93, 6148.06,
3.29688, $-q^{45} (-1 - q^2 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} +$
 $q^{17} - q^{18} + q^{19} - q^{20} + q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} + q^{33})$ }

Fast Jones: { KnotTheory`TorusKnot [93, 2], 93, 6148.83, 0.75,
 $-q^{46} (-1 - q^2 + q^3 - q^4 + q^5 - q^6 + q^7 - q^8 + q^9 - q^{10} + q^{11} - q^{12} + q^{13} - q^{14} + q^{15} - q^{16} + q^{17} - q^{18} + q^{19} - q^{20} +$
 $q^{21} - q^{22} + q^{23} - q^{24} + q^{25} - q^{26} + q^{27} - q^{28} + q^{29} - q^{30} + q^{31} - q^{32} + q^{33} - q^{34} + q^{35} - q^{36} + q^{37} - q^{38} + q^{39} -$
 $q^{40} + q^{41} - q^{42} + q^{43} - q^{44} + q^{45} - q^{46} + q^{47} - q^{48} + q^{49} - q^{50} + q^{51} - q^{52} + q^{53} - q^{54} + q^{55} - q^{56} + q^{57} -$
 $q^{58} + q^{59} - q^{60} + q^{61} - q^{62} + q^{63} - q^{64} + q^{65} - q^{66} + q^{67} - q^{68} + q^{69} - q^{70} + q^{71} - q^{72} + q^{73} - q^{74} + q^{75} -$
 $q^{76} + q^{77} - q^{78} + q^{79} - q^{80} + q^{81} - q^{82} + q^{83} - q^{84} + q^{85} - q^{86} + q^{87} - q^{88} + q^{89} - q^{90} + q^{91} - q^{92} + q^{93})$ }

Fast Jones: { KnotTheory`TorusKnot [47, 3], 94, 6150.03, 1.1875, $q^{46} + q^{48} - q^{94}$ }