

<< **KnotTheory`**

Loading KnotTheory` version of February 5, 2013, 3:48:46.4762.
 Read more at <http://katlas.org/wiki/KnotTheory>.

(# → KnotDet[#]) & /@ AllKnots[{3, 7}]

```
{Knot[3, 1] → 3, Knot[4, 1] → 5, Knot[5, 1] → 5, Knot[5, 2] → 7, Knot[6, 1] → 9,
  Knot[6, 2] → 11, Knot[6, 3] → 13, Knot[7, 1] → 7, Knot[7, 2] → 11, Knot[7, 3] → 13,
  Knot[7, 4] → 15, Knot[7, 5] → 17, Knot[7, 6] → 19, Knot[7, 7] → 21}
```

k9 = Select[AllKnots[{3, 10}], Divisible[KnotDet[#], 9] &]

```
{Knot[6, 1], Knot[8, 10], Knot[8, 11], Knot[8, 18], Knot[8, 20], Knot[9, 1], Knot[9, 6],
  Knot[9, 23], Knot[9, 24], Knot[9, 35], Knot[9, 37], Knot[9, 46], Knot[9, 47],
  Knot[9, 48], Knot[10, 4], Knot[10, 10], Knot[10, 21], Knot[10, 29], Knot[10, 42],
  Knot[10, 62], Knot[10, 65], Knot[10, 67], Knot[10, 74], Knot[10, 75], Knot[10, 77],
  Knot[10, 82], Knot[10, 87], Knot[10, 89], Knot[10, 98], Knot[10, 99], Knot[10, 108],
  Knot[10, 140], Knot[10, 143], Knot[10, 147], Knot[10, 158], Knot[10, 164]}
```

(# → KnotDet[#]) & /@ k9

```
{Knot[6, 1] → 9, Knot[8, 10] → 27, Knot[8, 11] → 27, Knot[8, 18] → 45,
  Knot[8, 20] → 9, Knot[9, 1] → 9, Knot[9, 6] → 27, Knot[9, 23] → 45,
  Knot[9, 24] → 45, Knot[9, 35] → 27, Knot[9, 37] → 45, Knot[9, 46] → 9,
  Knot[9, 47] → 27, Knot[9, 48] → 27, Knot[10, 4] → 27, Knot[10, 10] → 45,
  Knot[10, 21] → 45, Knot[10, 29] → 63, Knot[10, 42] → 81, Knot[10, 62] → 45,
  Knot[10, 65] → 63, Knot[10, 67] → 63, Knot[10, 74] → 63, Knot[10, 75] → 81,
  Knot[10, 77] → 63, Knot[10, 82] → 63, Knot[10, 87] → 81, Knot[10, 89] → 99,
  Knot[10, 98] → 81, Knot[10, 99] → 81, Knot[10, 108] → 63, Knot[10, 140] → 9,
  Knot[10, 143] → 27, Knot[10, 147] → 27, Knot[10, 158] → 45, Knot[10, 164] → 45}
```

Tri[K_] := 3 Abs[Jones[K][e^{2πi/6}]]²

Tri[Knot[3, 1]]

KnotTheory:loading: Loading precomputed data in Jones4Knots`.

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(# → Tri[#]) & /@ k9

```
{Knot[6, 1] → 9, Knot[8, 10] → 9, Knot[8, 11] → 9, Knot[8, 18] → 27,
  Knot[8, 20] → 9, Knot[9, 1] → 9, Knot[9, 6] → 9, Knot[9, 23] → 9,
  Knot[9, 24] → 9, Knot[9, 35] → 27, Knot[9, 37] → 27, Knot[9, 46] → 27,
  Knot[9, 47] → 27, Knot[9, 48] → 27, Knot[10, 4] → 9, Knot[10, 10] → 9,
  Knot[10, 21] → 9, Knot[10, 29] → 9, Knot[10, 42] → 9, Knot[10, 62] → 9,
  Knot[10, 65] → 9, Knot[10, 67] → 9, Knot[10, 74] → 27, Knot[10, 75] → 27,
  Knot[10, 77] → 9, Knot[10, 82] → 9, Knot[10, 87] → 9, Knot[10, 89] → 9,
  Knot[10, 98] → 27, Knot[10, 99] → 27, Knot[10, 108] → 9, Knot[10, 140] → 9,
  Knot[10, 143] → 9, Knot[10, 147] → 9, Knot[10, 158] → 9, Knot[10, 164] → 9}
```

Tri[Knot[4, 1]]

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