```
<< KnotTheory`
```

```
Loading KnotTheory` version of September 6, 2014, 13:37:37.2841.
Read more at http://katlas.org/wiki/KnotTheory.
```

```
MonomialQ[c_] /; FreeQ[c, t] := True;
MonomialQ[c_. t] /; FreeQ[c, t] := True;
MonomialQ[c_. t-] /; FreeQ[c, t] := True;
MonomialQ[_] = False;
FMQ[m_] /; MonomialQ[m] := True;
FMQ[r_] /; ! MonomialQ[Denominator[r]] := False;
FMQ[p_] := Module[{fp = Factor[p], fac},
  fp = Select[fp, (! MonomialQ[#]) &];
  If[! MatchQ[Head[fp], Times | Power], False,
   fac = FactorList[fp][[2, 1]];
   FMQ[Together[fp / (fac (fac /. t → 1/t))]]]
 ]
```

```
l11 = Select[AllKnots[{3, 11}], FMQ[Alexander[#][t]] &]
```

```
{Knot[6, 1], Knot[8, 8], Knot[8, 9], Knot[8, 20], Knot[9, 27], Knot[9, 41],
 Knot[9, 46], Knot[10, 3], Knot[10, 22], Knot[10, 35], Knot[10, 42], Knot[10, 48],
 Knot[10, 75], Knot[10, 87], Knot[10, 98], Knot[10, 99], Knot[10, 123],
 Knot[10, 129], Knot[10, 137], Knot[10, 140], Knot[10, 153], Knot[10, 155],
 Knot[11, Alternating, 28], Knot[11, Alternating, 35], Knot[11, Alternating, 36],
 Knot[11, Alternating, 58], Knot[11, Alternating, 87], Knot[11, Alternating, 96],
 Knot[11, Alternating, 103], Knot[11, Alternating, 115], Knot[11, Alternating, 164],
 Knot[11, Alternating, 165], Knot[11, Alternating, 169], Knot[11, Alternating, 201],
 Knot[11, Alternating, 316], Knot[11, Alternating, 326], Knot[11, NonAlternating, 4],
 Knot[11, NonAlternating, 21], Knot[11, NonAlternating, 34], Knot[11, NonAlternating, 37],
 Knot[11, NonAlternating, 39], Knot[11, NonAlternating, 42], Knot[11, NonAlternating, 45],
 Knot[11, NonAlternating, 49], Knot[11, NonAlternating, 50], Knot[11, NonAlternating, 67],
 Knot[11, NonAlternating, 72], Knot[11, NonAlternating, 73], Knot[11, NonAlternating, 74],
 Knot[11, NonAlternating, 83], Knot[11, NonAlternating, 97], Knot[11, NonAlternating, 116],
 Knot[11, NonAlternating, 132], Knot[11, NonAlternating, 139],
 Knot[11, NonAlternating, 145], Knot[11, NonAlternating, 172]}
```

```
Alexander[Knot[10, 98]][t] // Factor
```

$$-\frac{(-2+t)\,(-1+2\,t)\,\left(1-t+t^2\right)^2}{t^3}$$

```
KnotSignature[Knot[10, 98]]
```

```
-4
```

```
KnotSignature /@ l11
```

```
{0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -4, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 4, 0, 0, 0, 0, 0, 0, 0, 0, 0}
```