

In[ ]:= **Date** [ ]

Out[ ]:= {2020, 12, 23, 19, 46, 21.7045894}

In[ ]:= **SetDirectory**@"C:\\drorbn\\AcademicPensieve\\Projects\\BabyDoPeGDO"

<< **Engine.m**  
 << **Objects.m**  
 << **KT.m**

Out[ ]:= C:\\drorbn\\AcademicPensieve\\Projects\\BabyDoPeGDO

Loading KnotTheory` version of February 2, 2020, 10:53:45.2097.  
 Read more at <http://katlas.org/wiki/KnotTheory>.

This is Profile.m of <http://www.drorbn.net/AcademicPensieve/Projects/Profile/>.

This version: April 2020. Original version: July 1994.

In[ ]:= **BeginProfile** [ ];

**PopupWindow**[**Button**["Show Profile Monitor"],  
**Dynamic**[**PrintProfile** [ ], **UpdateInterval** → 3, **TrackedSymbols** → { }]]

Out[ ]:=

In[ ]:= **\$k = 1**

Out[ ]:= 1

In[ ]:= **NewBit** [ **K\_** ] := **Module** [ { **Alex = Alexander** [ **K** ] [ **T** ] },

$$T^3 \frac{\text{Alex}^2}{T - 1} Z[K][[3, 2]] // \text{Factor}$$

In[ ]:= **NewBit** /@ **AllKnots** [ { 3, 5 } ]

**KnotTheory**: Loading precomputed data in PD4Knots`.

Out[ ]:=  $\left\{ 2 - T + T^2, (1 + T) (1 - 3 T + T^2), \frac{4 - 3 T + 5 T^2 - 3 T^3 + 3 T^4 - T^5 + T^6}{T^2}, 9 - 11 T + 7 T^2 - T^3 \right\}$

In[ ]:= (\*Two knots with equal Alexander, new bit does not agree\*)

**Alexander** [ **Knot** [ 6, 1 ] ] == **Alexander** [ **Knot** [ 9, 46 ] ]  
**Timing** [ **NewBit** [ **Knot** [ 6, 1 ] ] == **NewBit** [ **Knot** [ 9, 46 ] ] ]

Out[ ]:= True

Out[ ]:= { 38.0625, 5 - 11 T - T^2 + 3 T^3 == 7 - 21 T + 9 T^2 + T^3 }

```
In[ ]:= PrintProfile []
```

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Out[ ]:= ProfileRoot is root. Profiled time: 72.268
( 24) 0/ 0.016 above CF
( 237) 2.855/ 68.480 above EZip23
( 237) 1.660/ 3.772 above Zip1
Zip3: called 237 times, time in 33.364/35.551
( 237) 33.364/ 35.551 under EZip23
( 1422) 0.792/ 2.187 above CF
CCF: called 15895 times, time in 16.788/16.788
( 15895) 16.788/ 16.788 under CF
CF: called 8837 times, time in 16.665/33.453
( 5495) 13.204/ 23.627 under EZip23
( 24) 0/ 0.016 under ProfileRoot
( 711) 1.128/ 2.112 under Zip1
( 1185) 1.541/ 5.511 under Zip2
( 1422) 0.792/ 2.187 under Zip3
( 15895) 16.788/ 16.788 above CCF
EZip23: called 237 times, time in 2.855/68.48
( 237) 2.855/ 68.480 under ProfileRoot
( 5495) 13.204/ 23.627 above CF
( 237) 0.936/ 6.447 above Zip2
( 237) 33.364/ 35.551 above Zip3
Zip1: called 237 times, time in 1.66/3.772
( 237) 1.660/ 3.772 under ProfileRoot
( 711) 1.128/ 2.112 above CF
Zip2: called 237 times, time in 0.936/6.447
( 237) 0.936/ 6.447 under EZip23
( 1185) 1.541/ 5.511 above CF
```

```
In[ ]:= Date []
```

```
Out[ ]:= {2020, 12, 23, 19, 47, 48.0734517}
```