Problem #96

Originator: Richard Statman [Sta00]
Date: July 2000

Summary: Is the word problem for all proper combinators of order smaller than 3 decidable?

The order of a proper combinator is the number of variables on the left hand side of its defining equation. For instance, the K combinator has order 2. Is the word problem for all proper combinators of order smaller than 3 decidable? See [Sta00] for related results.

A related question is the word problem for the S-combinator (of order 3), see Problem #97.

Bibliography

[Sta00] Rick Statman. On the word problem for combinators. In Leo Bachmair, editor, *Rewriting Techniques and Applications*, volume 1833 of *Lecture Notes in Computer Science*, pages 203–213, Norwich, UK, July 2000. Springer-Verlag.

January 22, 2014