Techniques de réécriture

TD n°6 : Knuth-Bendix Completion Visualizer *

Exercise 1 :

Solve exercise 4 from TD n°5 using KBCV (using autocompletion and step by step completion).

Exercise 2 :

Complete the following set **Gr** of equations :

$$x + 0 = x$$

$$0 + x = x$$

$$x + (-x) = 0$$

$$(-x) + x = 0$$

$$(x + y) + z = x + (y + z)$$

Add the equation $x + x = 0$. What happens ?

Exercise 3 :

Complete again **Gr**. Add the following equations :

$$x \times 1 = x$$

$$1 \times x = x$$

$$(x \times y) \times z = x \times (y \times z)$$

Complete again. Add distributivity :

$$x \times (y + z) = (x \times y) + (x \times z)$$

$$(x + y) \times z = (x \times z) + (y \times z)$$

Show that completion will fail.

*http://cl-informatik.uibk.ac.at/software/kbcv/