

⚡ Interrupted

Reduce] `solve(log(sin(x+3))^5 = 8,x);`

$$1: \left\{ x = 2 \operatorname{arbint}(5) \pi + \arcsin \left(\frac{\exp \left(2^{3/5} \cos \left(\frac{2\pi}{5} \right) \right)}{\exp \left(2^{3/5} \sin \left(\frac{2\pi}{5} \right) i \right)} \right) - 3, x = 2 \operatorname{arbint}(5) \pi - \right.$$
$$\arcsin \left(\frac{\exp \left(2^{3/5} \cos \left(\frac{2\pi}{5} \right) \right)}{\exp \left(2^{3/5} \sin \left(\frac{2\pi}{5} \right) i \right)} \right) + \pi - 3,$$
$$x = 2 \operatorname{arbint}(4) \pi + \arcsin \left(\frac{1}{\exp \left(2^{3/5} \cos \left(\frac{\pi}{5} \right) + 2^{3/5} \sin \left(\frac{\pi}{5} \right) i \right)} \right) - 3, x = 2 \operatorname{arbint}(4) \pi -$$
$$\arcsin \left(\frac{1}{\exp \left(2^{3/5} \cos \left(\frac{\pi}{5} \right) + 2^{3/5} \sin \left(\frac{\pi}{5} \right) i \right)} \right) + \pi - 3,$$
$$x = 2 \operatorname{arbint}(3) \pi + \arcsin \left(\frac{e^{2^{3/5} \sin \left(\frac{\pi}{5} \right) i}}{e^{2^{3/5} \cos \left(\frac{\pi}{5} \right)}} \right) - 3, x = 2 \operatorname{arbint}(3) \pi - \arcsin \left(\frac{e^{2^{3/5} \sin \left(\frac{\pi}{5} \right) i}}{e^{2^{3/5} \cos \left(\frac{\pi}{5} \right)}} \right) + \pi - 3,$$

$$\begin{aligned}
& x = 2 \operatorname{arbit}(2) \pi + \arcsin \left(\exp \left(2^{3/5} \cos \left(\frac{2\pi}{5} \right) + 2^{3/5} \sin \left(\frac{2\pi}{5} \right) i \right) \right) - 3, \quad x = 2 \operatorname{arbit}(2) \pi - \\
& \arcsin \left(\exp \left(2^{3/5} \cos \left(\frac{2\pi}{5} \right) + 2^{3/5} \sin \left(\frac{2\pi}{5} \right) i \right) \right) + \pi - 3, \\
& x = 2 \operatorname{arbit}(1) \pi + \arcsin \left(e^{2^{3/5}} \right) - 3, \quad x = 2 \operatorname{arbit}(1) \pi - \arcsin \left(e^{2^{3/5}} \right) + \pi - 3 \}
\end{aligned}$$

Pure 0.55 (i686-pc-mingw32) Copyright (c) 2008-2012 by Albert Graef
(Type 'help' for help, 'help copying' for license information.)
Loaded prelude from C:/NonPortable/Pure/lib/prelude.pure.

```

>> using reduce::reduce;
const redimg = "C:/NonPortable/Pure/lib/reduce/reduce.img" ;
cslstart 4 {"","-i",redimg,"-v"} NULL ;

Codemist Standard Lisp 6.03 for win32: Sep 25 2012
Created: Tue Sep 25 03:41:19 2012

Reduce (Free CSL version), 25-Sep-12 ...
Memory allocation: 13 Mbytes
There are 8 processors available
()

>> display p
= [] if PROC_null p ;
= PROC_symbol_name p if PROC_atom p && PROC_symbol p ;
= PROC_integer_value p if PROC_atom p && PROC_fixnum p ;
= PROC_floating_value if PROC_atom p && PROC_floatnum p ;
= PROC_string_data if PROC_atom p && PROC_string p ;
= display (PROC_first p):display (PROC_rest p) if ~PROC_atom p ;

>>
PROC_clear_stack ;
PROC_push_symbol "x" ;
PROC_push_small_integer 3 ;
PROC_make_function_call "plus" 2 ;
PROC_make_function_call "sin" 1 ;
PROC_make_function_call "log" 1 ;
PROC_push_small_integer 5 ;
PROC_make_function_call "expt" 2 ;
PROC_push_small_integer 8 ;
PROC_make_function_call "equal" 2 ;
PROC_push_symbol "x" ;
PROC_make_function_call "solve" 2 ;
PROC_make_function_call "first" 1 ;
PROC_make_function_call "rhs" 1 ;
PROC_simplify ;
PROC_dup ;
PROC_save 1 ;
PROC_make_printable; // try this when commented -> *SQ form

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Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(solve)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(matrix)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(matsm)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(matpri)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(extops)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(bareiss)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(det)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(glmat)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(nullsp)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(rank)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(nestdom)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(resultnt)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(polydiv)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(cofactor)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(solve1)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(ppsoln)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(solve1nr)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(glsolve)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(solvealg)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(solveta)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(quartic)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(ezgcd)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(alphas)"
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Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(unihens)"
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Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(bigmodp)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(degsets)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(facprim)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(facmod)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(facuni)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(imageset)"

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Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(pfactor)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(vecpoly)"
Fast-loading "C:/NonPortable/Pure/lib/reduce/reduce.img(pfacmult)"
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>> let p = PROC_get_value;
>> display p ;
["plus",["times",2,["arbint",5],"pi"],["asin",["quotient",["expt","e",
["times",["expt",2,["quotient",3,5]],["cos",["quotient",["times",2,"pi"],5]]]],
["expt","e",["times",["expt",2,["quotient",3,5]],["sin",["quotient",
["times",2,"pi"],5]],"i"]]]],["minus",3]]

```