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Last login: Thu Feb  8 19:39:04 on ttys019
 ~/corelib2_org/core2/progs/subdivision_solver ? make vclean
 ~/corelib2_org/core2/progs/subdivision_solver ? make main
g++ -o main main.cpp  -I../../inc  -I../../gmp/include  -I../../progs/mesh/arrangements-gui -L../../lib -L../../gmp/lib -lgmp -lmpfr
-lcore++Opt
 ~/corelib2_org/core2/progs/subdivision_solver ? make test
./main
*************** STEP 1: INPUT the Polynomial System ***************
   please input the first polynomial of the system:
x^2+y^2-1
   please input the second polynomial of the system:
x+y
*************** STEP 1 Finish! My polynomial system is ***************
    「y^2 + (x^2 - 1)=0
    「y + (x)=0

*************** STEP 2: INPUT the Box region ***************
    x_lower=-1
    x_upper=1
    y_lower=-1
    y_upper=1

*************** STEP 2 Finish! Box Region is ***************
[ -1, 1 ] * [ -1, 1 ]

*************** STEP 3 : INPUT precision of OUTPUT refined box region(0~positive infinty) ***************
0.001

*************** STEP 3 Finish! Precision is ***************
0.001

OUTER::   Split [ -1, 1 ] * [ -1, 1 ]
OUTER::   Split [ -1, 0 ] * [ 0, 1 ]
OUTER::   Split [ 0, 1 ] * [ 0, 1 ]
OUTER::   Split [ 0, 1 ] * [ -1, 0 ]
OUTER::   Split [ -1, 0 ] * [ -1, 0 ]
OUTER::   Split [ -1, -0.5 ] * [ 0.5, 1 ]
OUTER::   Split [ -0.5, 0 ] * [ 0.5, 1 ]
OUTER::     Box [ -0.5, 0 ] * [ 0, 0.5 ] was excluded
OUTER::   Split [ -1, -0.5 ] * [ 0, 0.5 ]
OUTER::     Box [ 0, 0.5 ] * [ 0.5, 1 ] was excluded
OUTER::     Box [ 0.5, 1 ] * [ 0.5, 1 ] was excluded
OUTER::     Box [ 0.5, 1 ] * [ 0, 0.5 ] was excluded
OUTER::     Box [ 0, 0.5 ] * [ 0, 0.5 ] was excluded
OUTER::     Box [ 0, 0.5 ] * [ -0.5, 0 ] was excluded
OUTER::   Split [ 0.5, 1 ] * [ -0.5, 0 ]
OUTER::   Split [ 0.5, 1 ] * [ -1, -0.5 ]
OUTER::   Split [ 0, 0.5 ] * [ -1, -0.5 ]
OUTER::     Box [ -1, -0.5 ] * [ -0.5, 0 ] was excluded
OUTER::     Box [ -0.5, 0 ] * [ -0.5, 0 ] was excluded
OUTER::     Box [ -0.5, 0 ] * [ -1, -0.5 ] was excluded
OUTER::     Box [ -1, -0.5 ] * [ -1, -0.5 ] was excluded
OUTER::     Box [ -1, -0.75 ] * [ 0.75, 1 ] was excluded

**********Now found   NO.1 isolated box in output queue-----[ -0.875, -0.375 ] * [ 0.625, 1.125 ]

[ -0.875, -0.375 ] * [ 0.625, 1.125 ]
OUTER::     Box [ -0.25, 0 ] * [ 0.75, 1 ] was excluded
OUTER::     Box [ -0.25, 0 ] * [ 0.5, 0.75 ] was excluded
OUTER::     Box [ -1, -0.75 ] * [ 0.25, 0.5 ] was excluded
OUTER::     Box [ -0.75, -0.5 ] * [ 0.25, 0.5 ] was excluded
OUTER::     Box [ -0.75, -0.5 ] * [ 0, 0.25 ] was excluded
OUTER::     Box [ -1, -0.75 ] * [ 0, 0.25 ] was excluded
OUTER::     Box [ 0.5, 0.75 ] * [ -0.25, 0 ] was excluded
OUTER::     Box [ 0.75, 1 ] * [ -0.25, 0 ] was excluded
OUTER::     Box [ 0.75, 1 ] * [ -0.5, -0.25 ] was excluded
OUTER::     Box [ 0.5, 0.75 ] * [ -0.5, -0.25 ] was excluded

**********Now found   NO.2 isolated box in output queue-----[ 0.375, 0.875 ] * [ -0.875, -0.375 ]

[ -0.875, -0.375 ] * [ 0.625, 1.125 ]
OUTER::     Box [ 0, 0.25 ] * [ -0.75, -0.5 ] was excluded
OUTER::     Box [ 0, 0.25 ] * [ -1, -0.75 ] was excluded
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% Procedure of Refinement V1 %%%%%%%%%%%%%%%%%%%%%%%%%%
V1::Split::  Its too large  : [ -0.875, -0.375 ] * [ 0.625, 1.125 ]
V1::Split::  Its too large  : [ -0.625, -0.375 ] * [ 0.625, 0.875 ]
V1::Split::  Its too large  : [ -0.875, -0.625 ] * [ 0.625, 0.875 ]
V1::Split::  Its too large  : [ -0.75, -0.625 ] * [ 0.75, 0.875 ]
V1::Split::  Its too large  : [ -0.75, -0.625 ] * [ 0.625, 0.75 ]
V1::Split::  Its too large  : [ -0.875, -0.75 ] * [ 0.625, 0.75 ]
V1::Split::  Its too large  : [ -0.75, -0.6875 ] * [ 0.6875, 0.75 ]
V1::Split::  Its too large  : [ -0.6875, -0.625 ] * [ 0.6875, 0.75 ]
V1::Split::  Its too large  : [ -0.75, -0.6875 ] * [ 0.625, 0.6875 ]
V1::Split::  Its too large  : [ -0.71875, -0.6875 ] * [ 0.71875, 0.75 ]
V1::Split::  Its too large  : [ -0.71875, -0.6875 ] * [ 0.6875, 0.71875 ]
V1::Split::  Its too large  : [ -0.75, -0.71875 ] * [ 0.6875, 0.71875 ]
V1::Split::  Its too large  : [ -0.71875, -0.703125 ] * [ 0.703125, 0.71875 ]
V1::Split::  Its too large  : [ -0.703125, -0.6875 ] * [ 0.703125, 0.71875 ]
V1::Split::  Its too large  : [ -0.71875, -0.703125 ] * [ 0.6875, 0.703125 ]
V1::Split::  Its too large  : [ -0.7109375, -0.703125 ] * [ 0.7109375, 0.71875 ]
V1::Split::  Its too large  : [ -0.7109375, -0.703125 ] * [ 0.703125, 0.7109375 ]
V1::Split::  Its too large  : [ -0.71875, -0.7109375 ] * [ 0.703125, 0.7109375 ]
V1::Split::  Its too large  : [ -0.7109375, -0.70703125 ] * [ 0.70703125, 0.7109375 ]
V1::Split::  Its too large  : [ -0.70703125, -0.703125 ] * [ 0.70703125, 0.7109375 ]
V1::Split::  Its too large  : [ -0.7109375, -0.70703125 ] * [ 0.703125, 0.70703125 ]
V1::Split::  Its too large  : [ -0.708984375, -0.70703125 ] * [ 0.70703125, 0.708984375 ]
V1::Split::  Its too large  : [ -0.70703125, -0.705078125 ] * [ 0.70703125, 0.708984375 ]
V1::Split::  Its too large  : [ -0.708984375, -0.70703125 ] * [ 0.705078125, 0.70703125 ]

**********Now found   NO.1 limited box in output queue-----[ -0.7080078125, -0.70703125 ] * [ 0.70703125, 0.7080078125 ]
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V1::Split::  Its too large  : [ 0.375, 0.875 ] * [ -0.875, -0.375 ]
V1::Split::  Its too large  : [ 0.625, 0.875 ] * [ -0.625, -0.375 ]
V1::Split::  Its too large  : [ 0.625, 0.875 ] * [ -0.875, -0.625 ]
V1::Split::  Its too large  : [ 0.375, 0.625 ] * [ -0.875, -0.625 ]
V1::Split::  Its too large  : [ 0.625, 0.75 ] * [ -0.75, -0.625 ]
V1::Split::  Its too large  : [ 0.75, 0.875 ] * [ -0.75, -0.625 ]
V1::Split::  Its too large  : [ 0.625, 0.75 ] * [ -0.875, -0.75 ]
V1::Split::  Its too large  : [ 0.6875, 0.75 ] * [ -0.6875, -0.625 ]
V1::Split::  Its too large  : [ 0.6875, 0.75 ] * [ -0.75, -0.6875 ]
V1::Split::  Its too large  : [ 0.625, 0.6875 ] * [ -0.75, -0.6875 ]
V1::Split::  Its too large  : [ 0.6875, 0.71875 ] * [ -0.71875, -0.6875 ]
V1::Split::  Its too large  : [ 0.71875, 0.75 ] * [ -0.71875, -0.6875 ]
V1::Split::  Its too large  : [ 0.6875, 0.71875 ] * [ -0.75, -0.71875 ]
V1::Split::  Its too large  : [ 0.703125, 0.71875 ] * [ -0.703125, -0.6875 ]
V1::Split::  Its too large  : [ 0.703125, 0.71875 ] * [ -0.71875, -0.703125 ]
V1::Split::  Its too large  : [ 0.6875, 0.703125 ] * [ -0.71875, -0.703125 ]
V1::Split::  Its too large  : [ 0.703125, 0.7109375 ] * [ -0.7109375, -0.703125 ]
V1::Split::  Its too large  : [ 0.7109375, 0.71875 ] * [ -0.7109375, -0.703125 ]
V1::Split::  Its too large  : [ 0.703125, 0.7109375 ] * [ -0.71875, -0.7109375 ]
V1::Split::  Its too large  : [ 0.70703125, 0.7109375 ] * [ -0.70703125, -0.703125 ]
V1::Split::  Its too large  : [ 0.70703125, 0.7109375 ] * [ -0.7109375, -0.70703125 ]
V1::Split::  Its too large  : [ 0.703125, 0.70703125 ] * [ -0.7109375, -0.70703125 ]
V1::Split::  Its too large  : [ 0.70703125, 0.708984375 ] * [ -0.70703125, -0.705078125 ]
V1::Split::  Its too large  : [ 0.70703125, 0.708984375 ] * [ -0.708984375, -0.70703125 ]
V1::Split::  Its too large  : [ 0.705078125, 0.70703125 ] * [ -0.708984375, -0.70703125 ]
V1::Split::  Fail in MKtest   : [ 0.70703125, 0.7080078125 ] * [ -0.70703125, -0.7060546875 ]

**********Now found   NO.2 limited box in output queue-----[ 0.70703125, 0.7080078125 ] * [ -0.7080078125, -0.70703125 ]

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% Procedure of Refinement V2 %%%%%%%%%%%%%%%%%%%%%%%
V2::Split::  Its too large, though s.t. MKtest  : [ -0.875, -0.375 ] * [ 0.625, 1.125 ]
V2::Split::  Fail in MKtest   : [ -0.625, -0.375 ] * [ 0.625, 0.875 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.875, -0.625 ] * [ 0.625, 0.875 ]
V2::Split::  Fail in MKtest   : [ -0.75, -0.625 ] * [ 0.75, 0.875 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.75, -0.625 ] * [ 0.625, 0.75 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.75, -0.6875 ] * [ 0.6875, 0.75 ]
V2::Split::  Fail in MKtest   : [ -0.71875, -0.6875 ] * [ 0.71875, 0.75 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.71875, -0.6875 ] * [ 0.6875, 0.71875 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.71875, -0.703125 ] * [ 0.703125, 0.71875 ]
V2::Split::  Fail in MKtest   : [ -0.7109375, -0.703125 ] * [ 0.7109375, 0.71875 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.7109375, -0.703125 ] * [ 0.703125, 0.7109375 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.7109375, -0.70703125 ] * [ 0.70703125, 0.7109375 ]
V2::Split::  Its too large, though s.t. MKtest  : [ -0.708984375, -0.70703125 ] * [ 0.70703125, 0.708984375 ]

**********Now found   NO.1 limited box in output queue-----[ -0.7080078125, -0.70703125 ] * [ 0.70703125, 0.7080078125 ]

V2::Split::  Its too large, though s.t. MKtest  : [ 0.375, 0.875 ] * [ -0.875, -0.375 ]
V2::Split::  Fail in MKtest   : [ 0.625, 0.875 ] * [ -0.625, -0.375 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.625, 0.875 ] * [ -0.875, -0.625 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.625, 0.75 ] * [ -0.75, -0.625 ]
V2::Split::  Fail in MKtest   : [ 0.6875, 0.75 ] * [ -0.6875, -0.625 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.6875, 0.75 ] * [ -0.75, -0.6875 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.6875, 0.71875 ] * [ -0.71875, -0.6875 ]
V2::Split::  Fail in MKtest   : [ 0.703125, 0.71875 ] * [ -0.703125, -0.6875 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.703125, 0.71875 ] * [ -0.71875, -0.703125 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.703125, 0.7109375 ] * [ -0.7109375, -0.703125 ]
V2::Split::  Fail in MKtest   : [ 0.70703125, 0.7109375 ] * [ -0.70703125, -0.703125 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.70703125, 0.7109375 ] * [ -0.7109375, -0.70703125 ]
V2::Split::  Its too large, though s.t. MKtest  : [ 0.70703125, 0.708984375 ] * [ -0.708984375, -0.70703125 ]

**********Now found   NO.2 limited box in output queue-----[ 0.70703125, 0.7080078125 ] * [ -0.7080078125, -0.70703125 ]


***************The Solver find 2 isolated box finally***************
1:  [ -0.875, -0.375 ] * [ 0.625, 1.125 ]
2:  [ 0.375, 0.875 ] * [ -0.875, -0.375 ]

***************The Solver find 2 refined(v1) box finally***************
1:  [ -0.7080078125, -0.70703125 ] * [ 0.70703125, 0.7080078125 ]
2:  [ 0.70703125, 0.7080078125 ] * [ -0.7080078125, -0.70703125 ]

***************The Solver find 2 refined(v2) box finally***************
1:  [ -0.7080078125, -0.70703125 ] * [ 0.70703125, 0.7080078125 ]
2:  [ 0.70703125, 0.7080078125 ] * [ -0.7080078125, -0.70703125 ]

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
   .010914 seconds used for subdivision
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
   .024497 seconds used for refinement V1
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
   .018669 seconds used for refinement V2
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
 ~/corelib2_org/core2/progs/subdivision_solver
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