

```
1: % $Id: euclid.pl,v 1.1 2015-11-16 12:48:14-08 - - $
2:
3: gcd( X, Y, Z ) :- X > Y, T is X - Y, gcd( T, Y, Z ).
4: gcd( X, Y, Z ) :- X < Y, T is Y - X, gcd( X, T, Z ).
5: gcd( X, X, X ).
6:
7: % TEST: gcd( 111, 259, Z ).
```

```
1: spawn gprolog
2: [euclid].
3:
4: GNU Prolog 1.4.4 (64 bits)
5: Compiled Nov  6 2014, 18:04:28 with gcc
6: By Daniel Diaz
7: Copyright (C) 1999-2013 Daniel Diaz
8: | ?- [euclid].
9: gcd( 111, 259, Z ).
10:
11: compiling /afs/cats.ucsc.edu/courses/cmpls112-wm/Languages/prolog/Example
s/euclid.pl for byte code...
12: /afs/cats.ucsc.edu/courses/cmpls112-wm/Languages/prolog/Examples/euclid.p
l compiled, 7 lines read - 1285 bytes written, 24 ms
13:
14: yes
15: | ?-
16: gcd( 111, 259, Z ).
17:
18: Z = 37 ?
19:
20: yes
21: | ?-
```