CoCoALib - Feature #1108

New fn: IsCoprime (whenever gcd makes sense)

17 Oct 2017 16:48 - John Abbott

Status:	Closed	**Start date:**	17 Oct 2017
Priority:	Normal	**Due date:**	
Assignee:	John Abbott	**% Done:**	100%
Category:	New Function	**Estimated time:**	0.00 hour
Target version:	CoCoALib-0.99560	**Spent time:**	0.75 hour

Description

Define a new fn **IsCoprime** which is equivalent to **IsInvertible(gcd(arg1, arg2))**

JAA thinks it is better to write code like this:

```
if (IsCoprime(f,g)) { cmds; }
```

than like this:

```
if (gcd(f,g) == 1) { cmds; }
```

or like this:

```
if (IsInvertible(gcd(f,g))) { cmds; }
```

Related issues:

Related to CoCoALib - Bug #1710: IsSqFree, IsIrred bugs in ZZ[x] and QQ[x]	**Closed**	**16 Nov 2022**

History

#1 - 17 Oct 2017 16:50 - John Abbott

The fn should be defined when **gcd** makes sense (*i.e.* for true GCD domains and BigInt).

At the moment I prefer the name IsCoprime to AreCoprime because most other boolean fns are called IsXYZ and also AreCoprime almost gives the idea that it could apply to a list (but with what semantics?)

#2 - 17 Oct 2017 17:15 - John Abbott

- Status changed from New to Resolved

- Assignee set to John Abbott

- % Done changed from 0 to 80

I have written a first trivial implementation. Seems to work.

#3 - 06 Nov 2017 15:27 - John Abbott

- Status changed from Resolved to Closed

- % Done changed from 80 to 100

#4 - 30 Nov 2022 21:33 - John Abbott

- Related to Bug #1710: IsSqFree, IsIrred bugs in ZZ[x] and QQ[x] added