

CoCoALib - Bug #1113

gcd crashes (Floating point exception)

27 Oct 2017 17:45 - John Abbott

Status:	Closed	Start date:	27 Oct 2017
Priority:	Normal	Due date:	
Assignee:	John Abbott	% Done:	100%
Category:	Safety	Estimated time:	0.00 hour
Target version:	CoCoALib-0.99650 November 2019	Spent time:	0.50 hour
Description			
In an old file (from 2006) I found two examples where GCD (in CoCoA4) crashes because it runs out of primes; since we use the same old code in CoCoA-5... guess what happens :-(<pre>>>> N := factorial(5500); >>> F := N*x+N+1; >>> J := gcd(F^2, F^2+F);</pre> <pre>Process cocoa5 floating point exception (core dumped)</pre>			
Related issues:			
Related to CoCoALib - Slug #1359: gcd: low degree but big coeffs can be slow		New	30 Oct 2019

History

#1 - 03 Nov 2017 12:38 - John Abbott

Here is another example (possibly simpler than the previous one?):

```
gcd(x+1, x+1+factorial(47000));
```

#2 - 30 Oct 2019 22:16 - John Abbott

- Status changed from New to Closed
- Assignee set to John Abbott
- Target version changed from CoCoALib-1.0 to CoCoALib-0.99650 November 2019
- % Done changed from 0 to 100

2019-10-30 I have just tried the example in comment 1, and it no longer crashes. No idea when it was resolved.

I have tried some similar but larger examples; they do not crash either, but they can be very slow.

I'll close this issue, and make a new one about the slug.

#3 - 30 Oct 2019 22:23 - John Abbott

- Related to Slug #1359: gcd: low degree but big coeffs can be slow added