

```

> a := evalf(Pi,30);
a := op(1,a);
a := 3.14159265358979323846264338328
a := 314159265358979323846264338328
(1)
> b := evalf(exp(1),30);
b := op(1,b);
b := 2.71828182845904523536028747135
b := 271828182845904523536028747135
(2)
> igcd(a,b);
1
(3)
> steps := 0;
while b>0 do
  r := irem(a,b,'q');
  print(r,q);
  a := b; b := r;
  steps ++;
od:
steps := 0
42331082513074800310235591193, 1
17841687767455721674615199977, 6
6647706978163356961005191239, 2
4546273811129007752604817499, 2
2101433167034349208400373740, 1
343407477060309335804070019, 2
40988304672493193575953626, 6
15501039680363787196441011, 8
9986225311765619183071604, 2
5514814368598168013369407, 1
4471410943167451169702197, 1
1043403425430716843667210, 1
297797241444583795033357, 4
150011701096965458567139, 3
147785540347618336466218, 1
2226160749347122100921, 1
858930890708277805432, 66
508298967930566490057, 2
350631922777711315375, 1
157667045152855174682, 1
35297832472000966011, 2
16475715264851310638, 4
2346401942298344735, 2
50901668762897493, 7

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4925179205060057, 46
 1649876712296923, 10
 1625425780466211, 2
 24450931830712, 1
 11664279639219, 66
 1122372552274, 2
 440554116479, 10
 241264319316, 2
 199289797163, 1
 41974522153, 1
 31391708551, 4
 10582813602, 1
 10226081347, 2
 356732255, 1
 237578207, 28
 119154048, 1
 118424159, 1
 729889, 1
 182141, 162
 1325, 4
 616, 137
 93, 2
 58, 6
 35, 1
 23, 1
 12, 1
 11, 1
 1, 1
 0, 11

(4)

> steps;

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(5)

> F := proc(n::nonnegint) F(n) := F(n-1)+F(n-2); end:
 F(0) := 0:
 F(1) := 1:

> seq(F(n), n=1..10);

1, 1, 2, 3, 5, 8, 13, 21, 34, 55

(6)

> a := F(201);

a := 453973694165307953197296969697410619233826

(7)

> b := F(200);

b := 280571172992510140037611932413038677189525

(8)

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> log[10.0](a);
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41.65703069 (9)

```
> log[10.0](b);
```

41.44804305 (10)

```
> igcd(a,b);
```

1 (11)

```
> steps := 0;
while b>0 do
  r := irem(a,b,'q');
  print(r,q);
  a := b; b := r;
  steps ++;
od:
```

steps := 0

173402521172797813159685037284371942044301, 1
107168651819712326877926895128666735145224, 1
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21, 1
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3, 1
2, 1
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0, 2

(12)

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(13)

> steps;