

```

> restart
> x := Vector(100) :
> y := Vector(100) :
> counter := 1 :
> for a from 2 to 672 do
  for b from 0 to a - 1 do
    h := b2 + b + 41 :
    if mod(h, a) = 0 then x[counter] := a : y[counter] := b : counter := counter + 1;
    end if;
  end do;
end do;
> counter

```

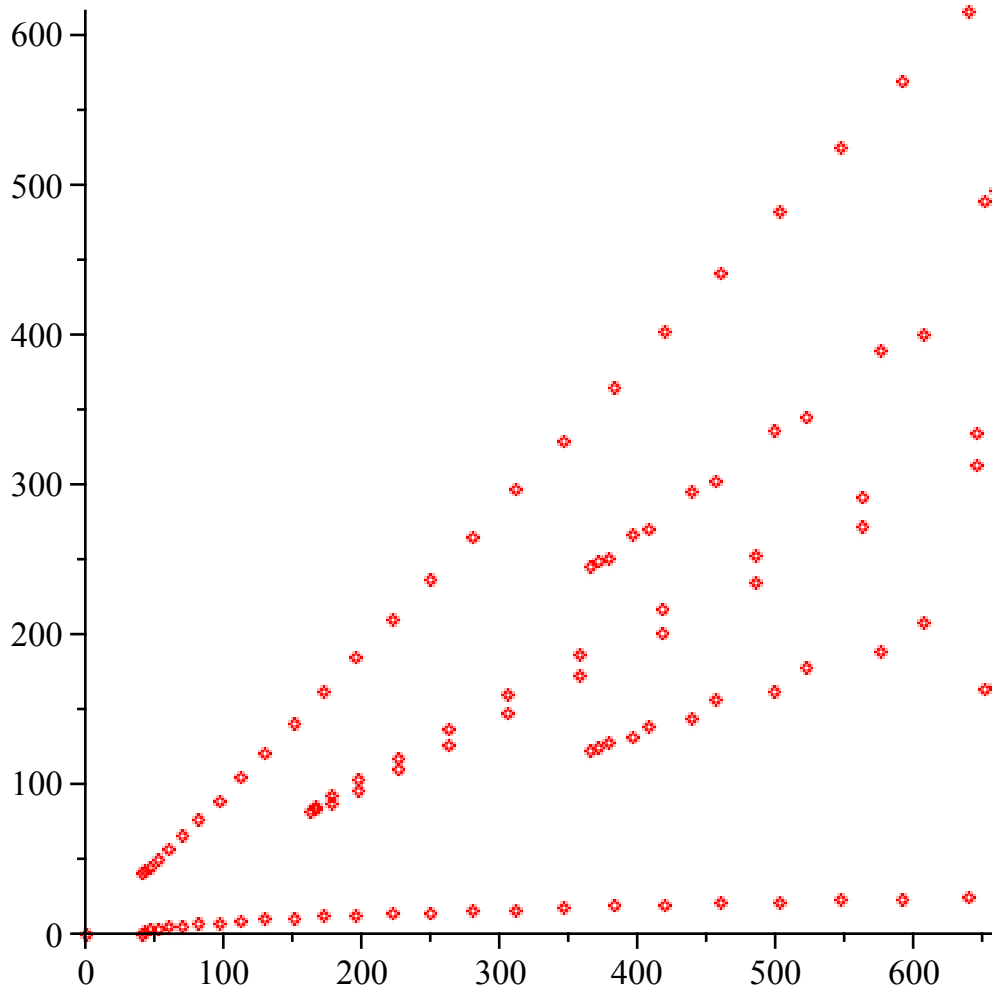
100

(1)

```

> # this example was cooked. The number 672 was chosen so that xy would exactly fill.
> # there are 100 rows and 2 columns in the xy matrix.
> plot(x, y, style=point);

```



```

> # This plot is 100 points of cases where (y2 + y + 41) mod x ≡ 0.
> # In other words h(y) is divisible by x.
> # now the dataset.

```

L>

```
> ('y_vector before x_vector');  
for c from 1 to 30 do  
  print(y[c], x[c]);  
end do;
```

y_vector before x_vector

0, 41
40, 41
1, 43
41, 43
2, 47
44, 47
3, 53
49, 53
4, 61
56, 61
5, 71
65, 71
6, 83
76, 83
7, 97
89, 97
8, 113
104, 113
9, 131
121, 131
10, 151
140, 151
81, 163
82, 167
84, 167
11, 173
161, 173
87, 179
91, 179
12, 197

(2)

```
> # for example h(0) is divisible by 41. Also h(40) is divisible by 41. etc...
```

```
>
```