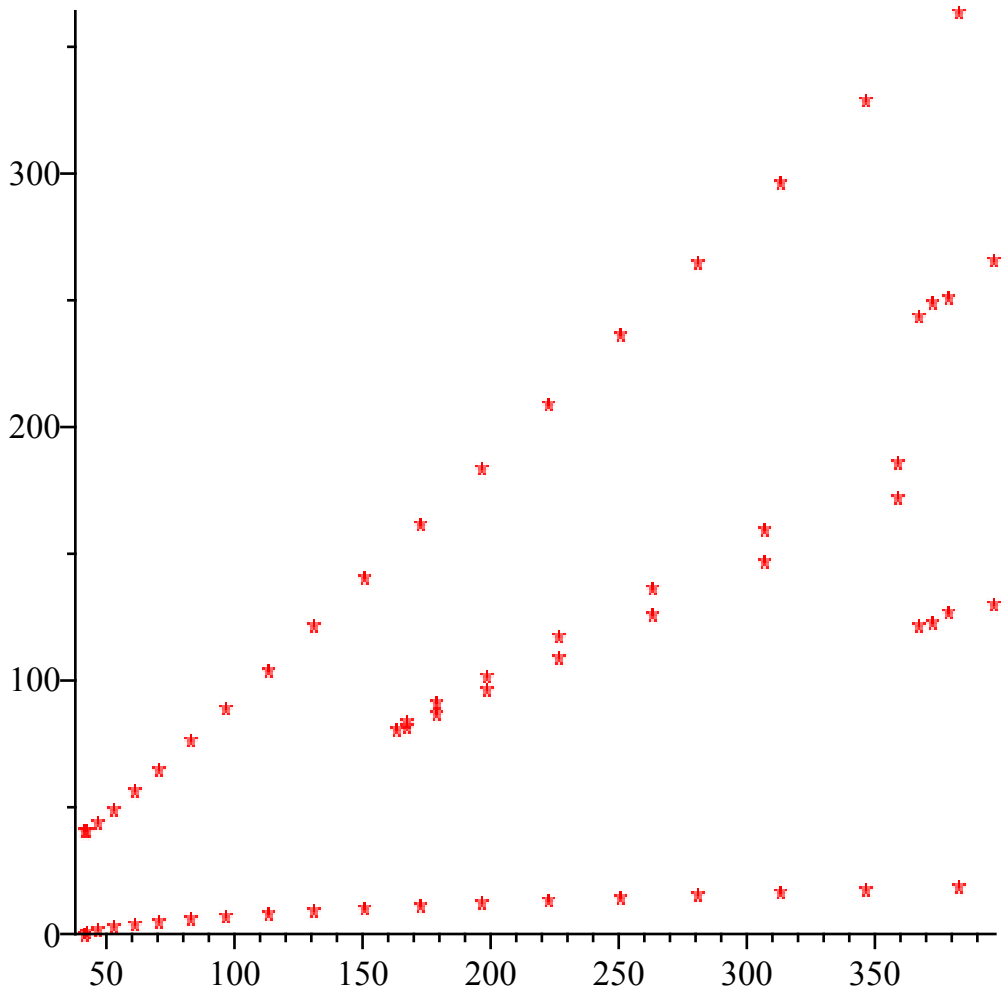
```
> x := Vector(61) :
  y := Vector(61) :
  counter := 1 :
  for a from 2 to 400 do
   for b from 0 to a − 1 do
   if mod(b^2 + b + 41, a) = 0 then x[counter] := a : y[counter] := b : counter := counter + 1;
       end if;
   end do:
   end do:
```

```
> plot(x , y, style = point, symbol = asterisk)
```




```
> # this is a graph of pairs (x,y) such that y^2 + y + 41 mod x = 0.
> # there is a point if y^2 + y + 41 is divisble by x and thus composite
> # this graph is if and only if.  If h(n) is composite then there is a point on the graph.  Also, if
      there is a point on the graph then h(n) is composite.
> # This page was coded in Maple.
> #Matt C. Anderson 12−14−2015
>
```

```
> # list of pairs (x,y) such that y^2 + y + 41 mod x ≡ 0.
> for a from 1 to 40 do
  x[a], y[a]
  end do;
```

41, 0
41, 40
43, 1
43, 41
47, 2
47, 44
53, 3
53, 49
61, 4
61, 56
71, 5
71, 65
83, 6
83, 76
97, 7
97, 89
113, 8
113, 104
131, 9
131, 121
151, 10
151, 140
163, 81
167, 82
167, 84
173, 11
173, 161
179, 87
179, 91
197, 12
197, 184
199, 96
199, 102
223, 13
223, 209
227, 109
227, 117
251, 14
251, 236

263, 126 **(1)**