

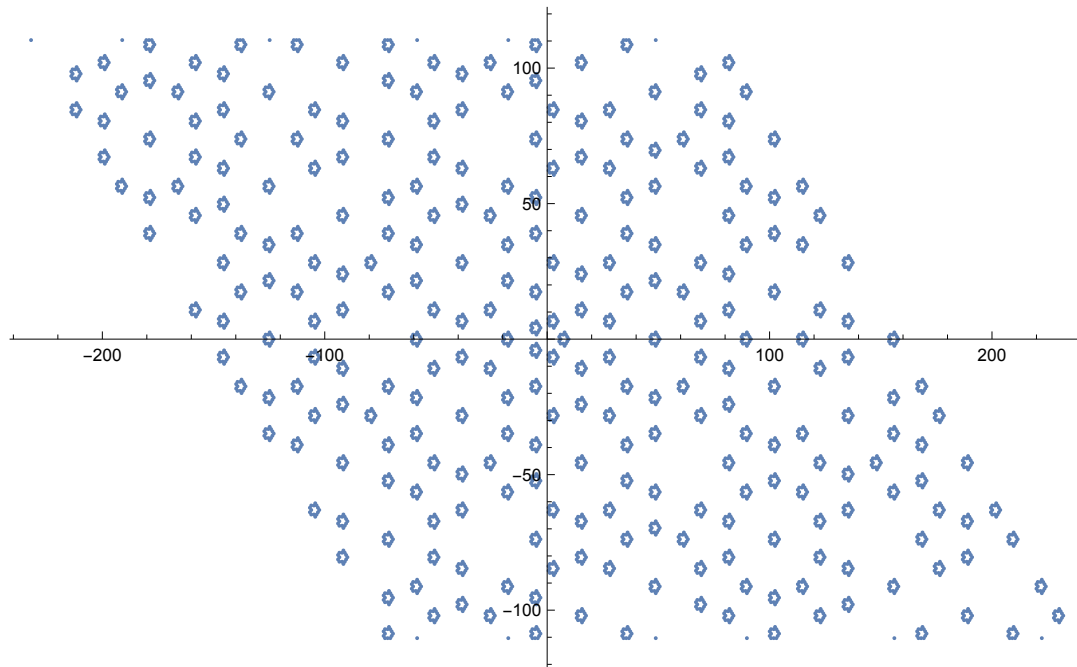
The small periods:

```
Tally[Flatten[Table[MinskyPeriod[x, y, 1, (5 - Sqrt[5])/2], {x, 0, 69}, {y, 0, 69}]]]
{{1, 1}, {5, 3168}, {20, 505}, {70, 304},
 {270, 228}, {1070, 311}, {30, 246}, {130, 135}, {530, 2}}
```

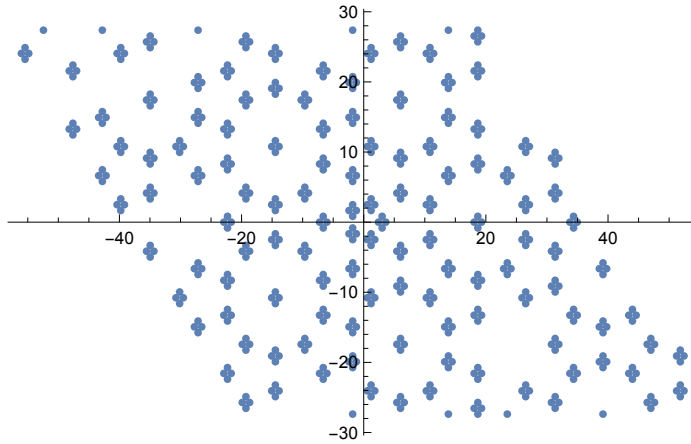
```
MinskyCircularize[1, (2 * Sin[π / 5]) ^ 2]
```

$$\frac{\left\{ \#1[[1]] - \frac{\#1[[2]]}{2}, \#1[[2]] \sqrt{\frac{1}{4 \left(\frac{5}{8} - \frac{\sqrt{5}}{8} \right)}} - \frac{1}{4} \right\}}{\sqrt{\sqrt{1^2 \left(\frac{1}{4 \left(\frac{5}{8} - \frac{\sqrt{5}}{8} \right)} \right)} - \frac{1}{4}}}} \&$$

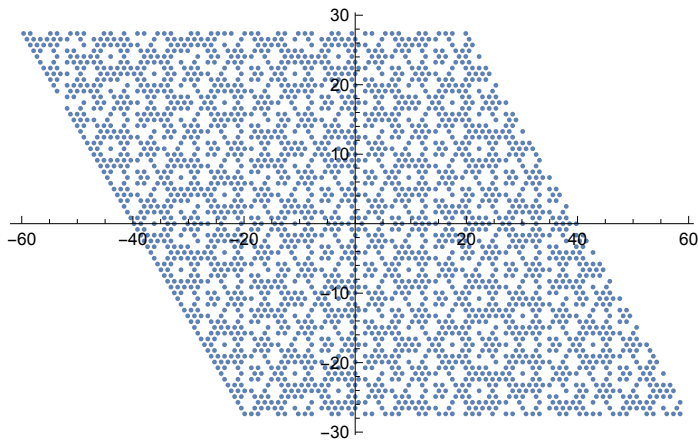
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1, (5 - Sqrt[5])/2]},
 Do[If[MinskyPeriod[x, y, 1, (5 - Sqrt[5])/2, 77][[1]] == 70, Sow[mc@{x, y}],
 {x, -133, 133}, {y, -133, 133}]]][[2, 1]], PlotStyle -> PointSize[Small]]
```



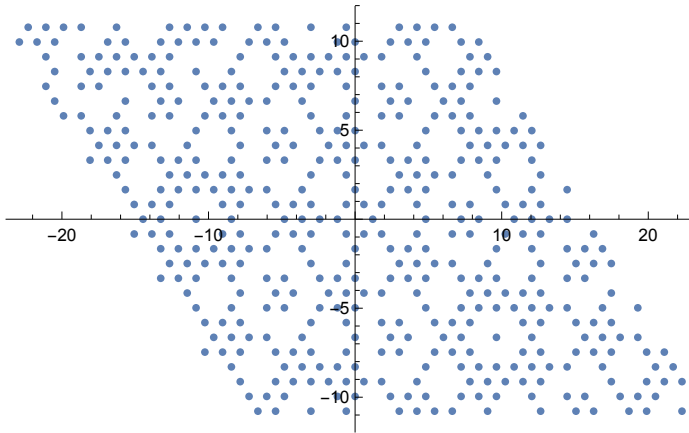
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1, (5 -  $\sqrt{5}$ )/2]},
  Do[If[MinskyPeriod[x, y, 1, (5 -  $\sqrt{5}$ )/2, 27][[1]] == 20, Sow[mc@{x, y}]],
    {x, -33, 33}, {y, -33, 33}]]][[2, 1]]]
```



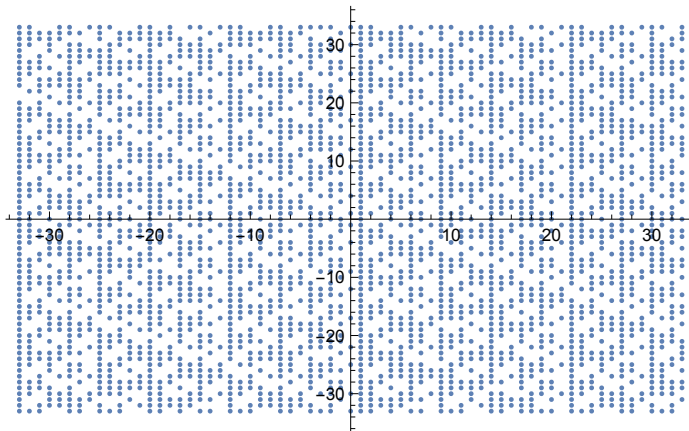
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1, (5 -  $\sqrt{5}$ )/2]},
  Do[If[MinskyPeriod[x, y, 1, (5 -  $\sqrt{5}$ )/2, 7][[1]] == 5, Sow[mc@{x, y}]],
    {x, -33, 33}, {y, -33, 33}]]][[2, 1]]]
```



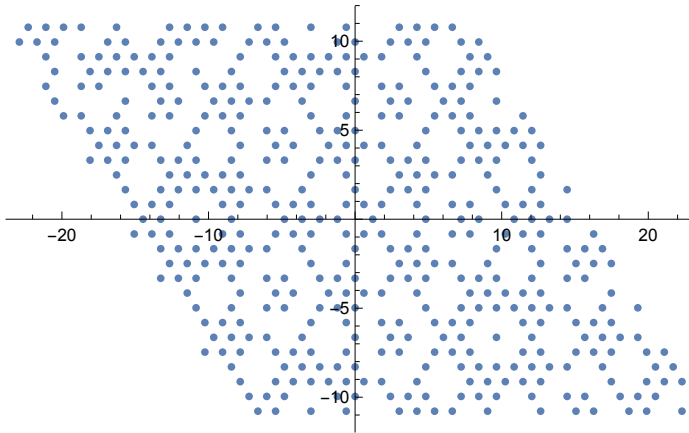
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1, (5 -  $\sqrt{5}$ )/2]},
  Do[If[MinskyPeriod[x, y, 1, (5 -  $\sqrt{5}$ )/2, 7][[1]] == 5, Sow[mc@{x, y}]],
    {x, -13, 13}, {y, -13, 13}]]][[2, 1]]
```



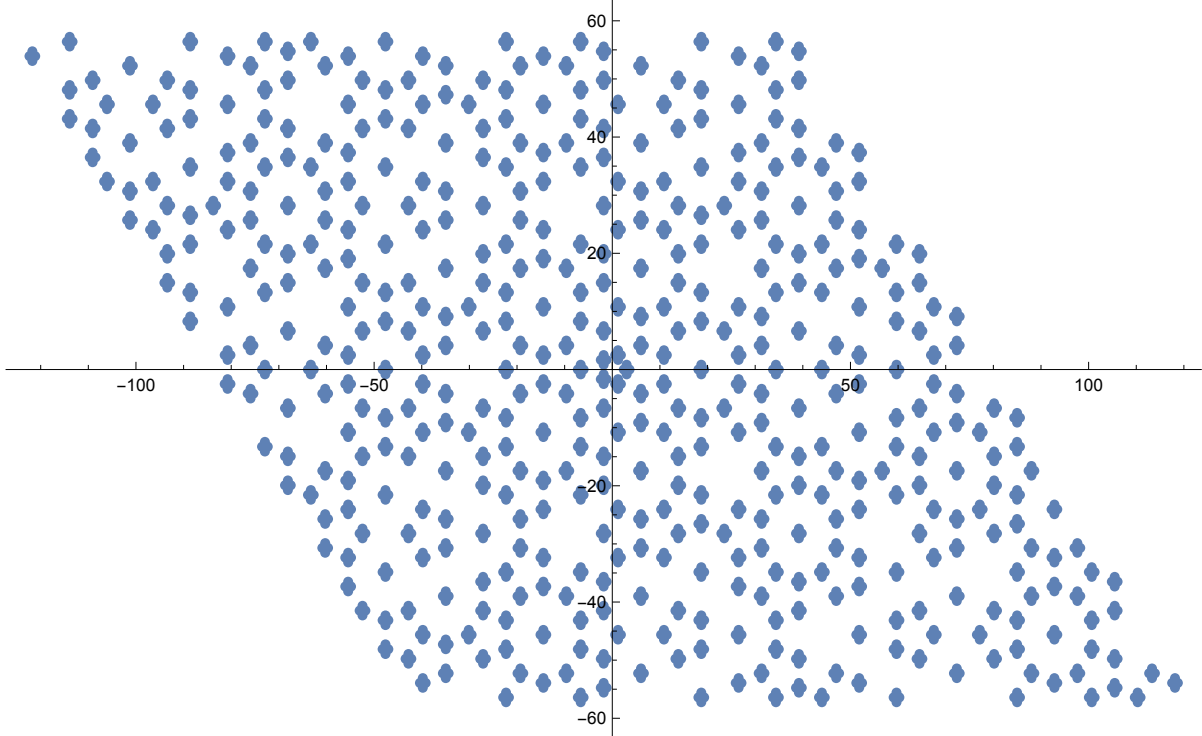
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1, (5 -  $\sqrt{5}$ )/2]},
  Do[If[MinskyPeriod[x, y, 1, (5 -  $\sqrt{5}$ )/2, 7][[1]] == 5, Sow[(*mc@*){x, y}]],
    {x, -33, 33}, {y, -33, 33}]]][[2, 1]]
```



```
ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2, 7]$ [[1]] == 5, Sow[mc@{x, y}]],
    {x, -13, 13}, {y, -13, 13}]]][[2, 1]]]
```



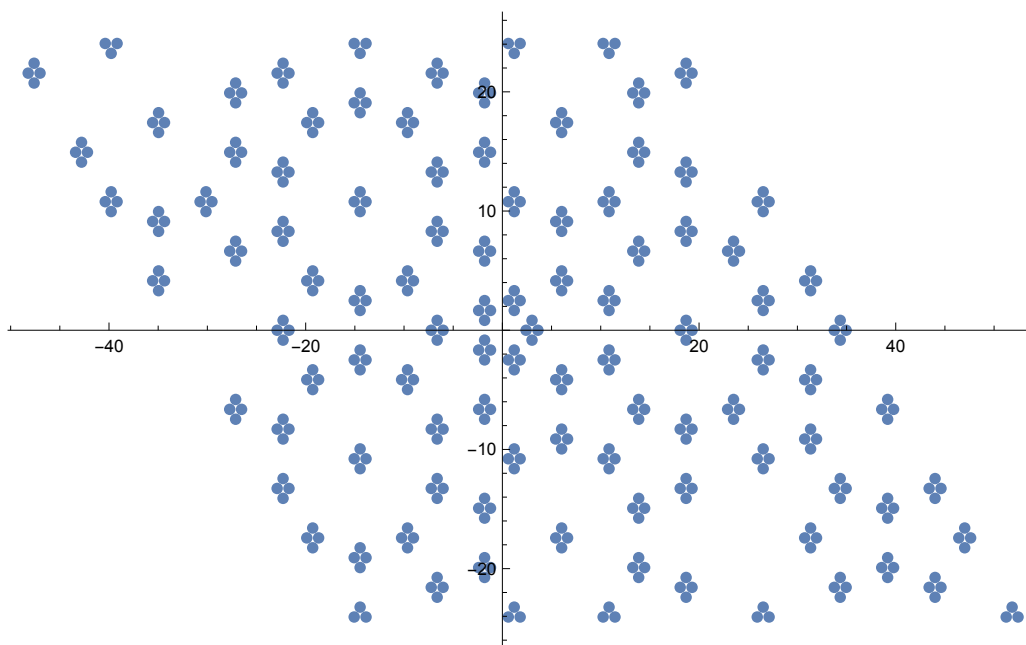
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2, 31]$ [[1]] == 20, Sow[mc@{x, y}]],
    {x, -69, 69}, {y, -69, 69}]]][[2, 1]]]
```



```

ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 31][[1]] == 20, Sow[mc@{x, y}]],
    {x, -29, 29}, {y, -29, 29}]]][[2, 1]]

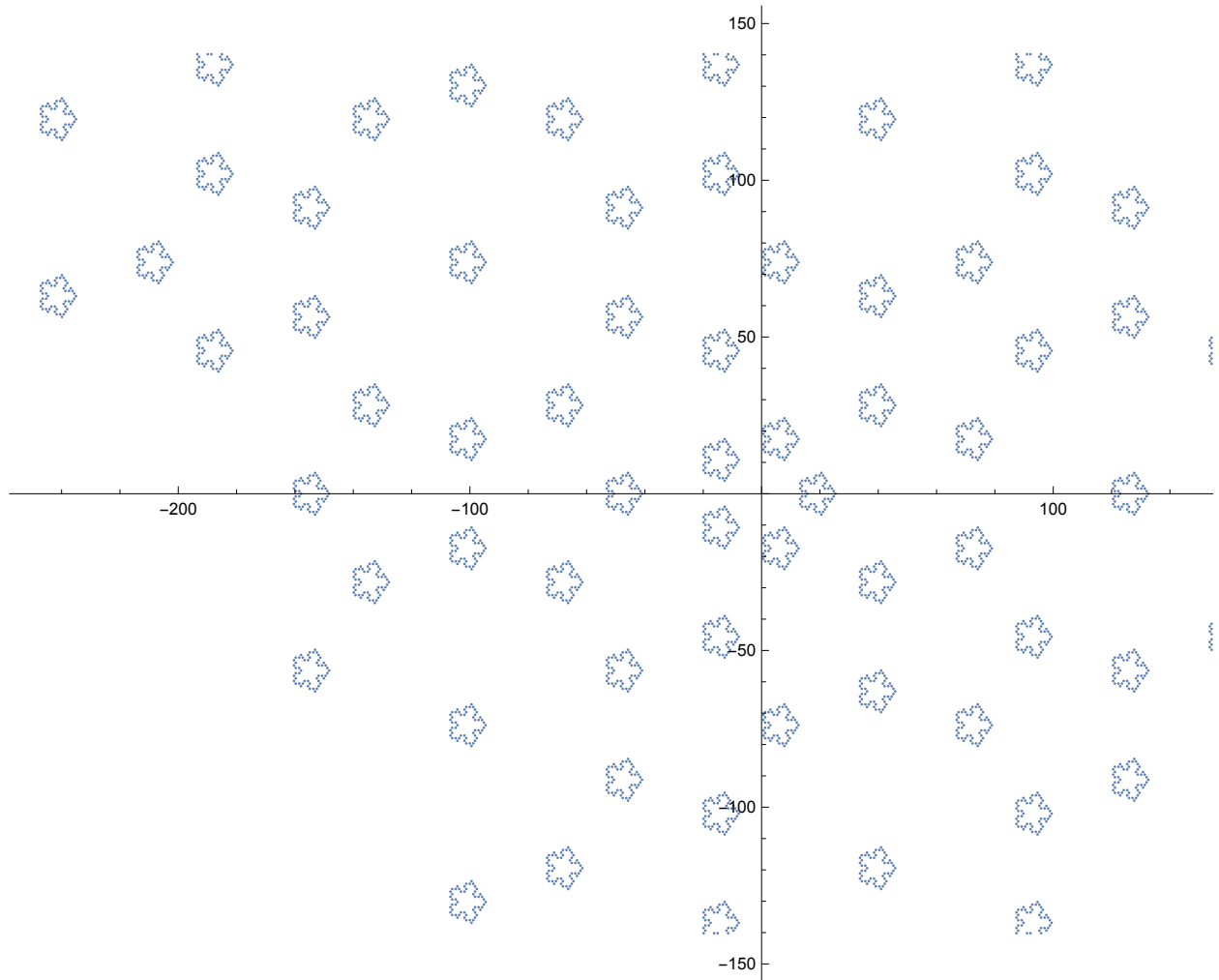
```



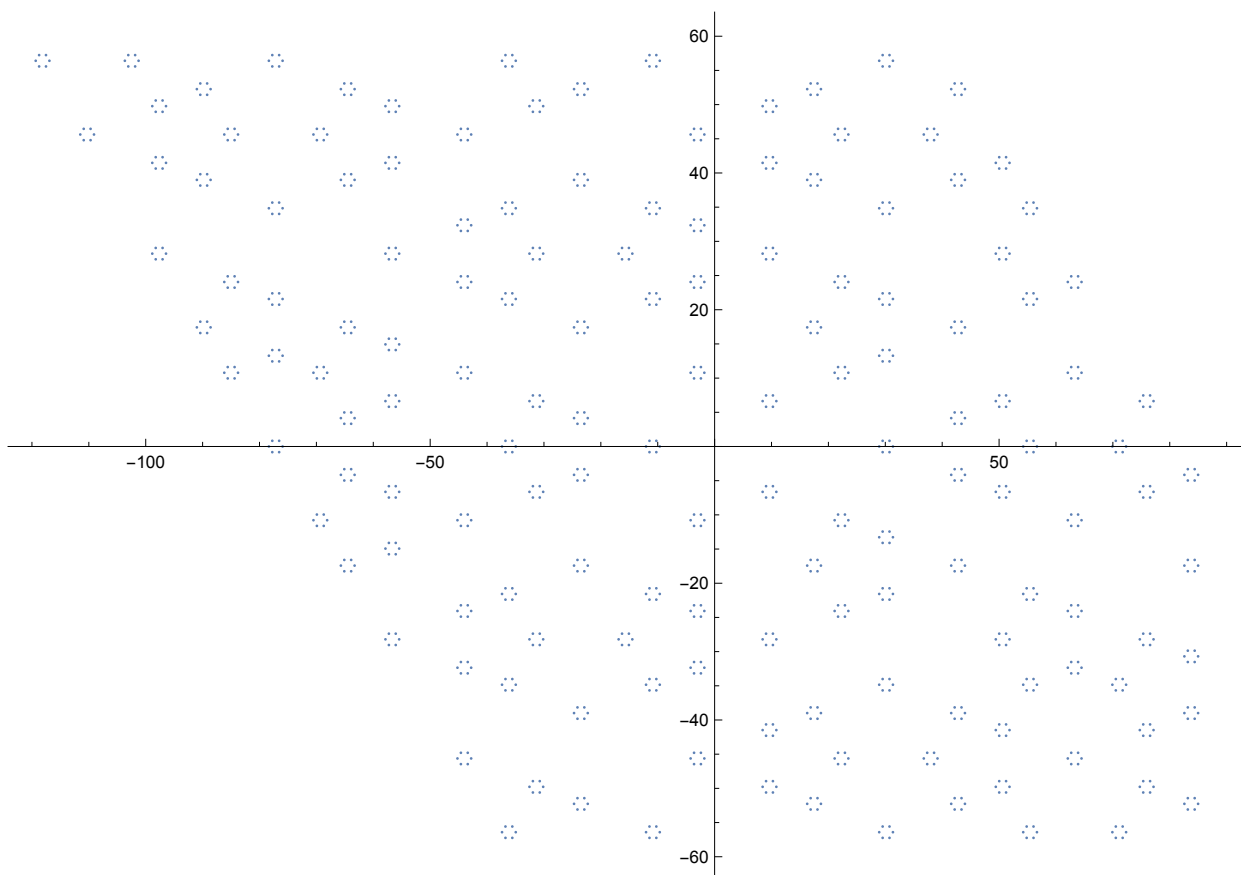
```

ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 271][[1]] == 270, Sow[mc@{x, y}]],
    {x, -169, 169}, {y, -169, 169}]]][[2, 1]], PlotStyle -> PointSize[Tiny]]

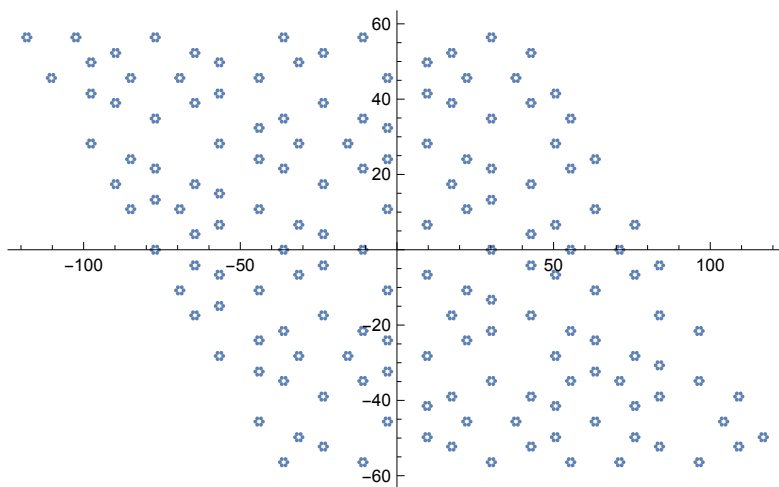
```



```
ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 31][[1]] == 30, Sow[mc@{x, y}]],
    {x, -69, 69}, {y, -69, 69}]]][[2, 1]], PlotStyle -> PointSize[Tiny]]
```



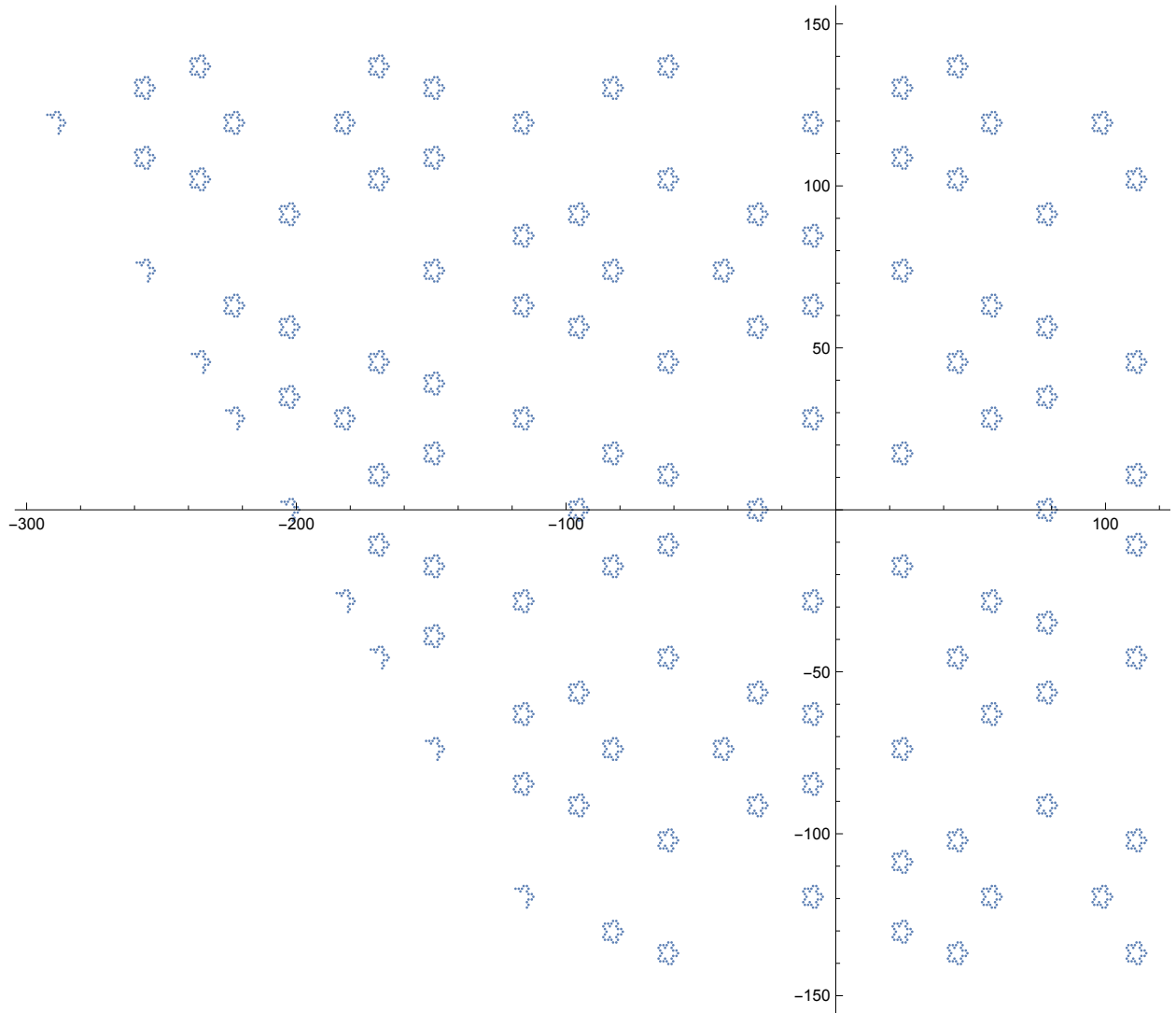
```
ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 31][[1]] == 30, Sow[mc@{x, y}]],
    {x, -69, 69}, {y, -69, 69}]]][[2, 1]], PlotStyle -> PointSize[Small]]
```



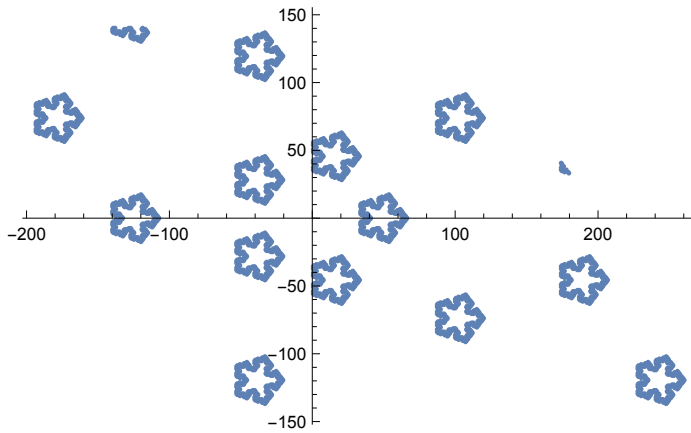
```

ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 131][[1]] == 130, Sow[mc@{x, y}]],
    {x, -169, 169}, {y, -169, 169}]]][[2, 1]], PlotStyle -> PointSize[Tiny]]

```




```
ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 1071][[1]] == 1070, Sow[mc@{x, y}]],
    {x, -169, 169}, {y, -169, 169}]]][[2, 1]]]
```



```
ListPlot[Reap[Block[{mc = MinskyCircularize[1,  $(5 - \sqrt{5})/2$ ]},
  Do[If[MinskyPeriod[x, y, 1,  $(5 - \sqrt{5})/2$ , 531][[1]] == 530, Sow[mc@{x, y}]],
    {x, -169, 169}, {y, -169, 169}]]][[2, 1]], PlotStyle -> PointSize[Tiny]]]
```

