Peano Curve

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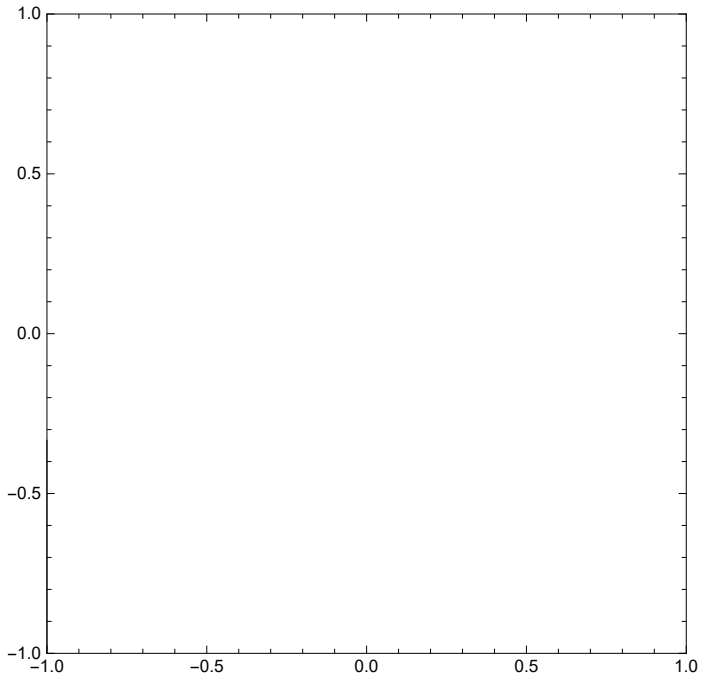
```
(*To begin with,
I construct a function that draws the peano curve in every square of step n.*)

Curve[n_Integer, l_List] :=
 Graphics[Line[{Scaled[l + {-1/3^n, -1/3^n}], Scaled[l + {-1/3^n, 0}],
    Scaled[l + {-1/3^n, 1/3^n}], Scaled[l + {0, 1/3^n}], Scaled[l],
    Scaled[l + {0, -1/3^n}], Scaled[l + {1/3^n, -1/3^n}], Scaled[l + {1/3^n, 0}],
    Scaled[l + {1/3^n, 1/3^n}]}], Frame → True, PlotRange → {{0, 1}, {0, 1}}]

Curve[1, {0, 0}]
```




```
(*Then I create a function that constructs the list of all square centers in step i*)
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```
Centers = {};
MakeCenters[i_Integer] := For[k = 0, k ≤ i, k++,
  For[j = 0, j ≤ i, j++ ×
    AppendTo[Centers, {k / 3^i + 1 / 2 * 3^i, j / 3^i + 1 / 2 * 3^i}]]]
(*Finally,
the function Peano[m_Integer] draws the Peano curve for each number 0≤i≤m *)
Peano[m_Integer] := For[i = 0, i ≤ m, i++,
  MakeCenters[i];
  For[p = 0, p ≤ Length[Centers], p++,
   Curve[i, Centers[[p]]]]]
```