`SetDirectory[NotebookDirectory[]];`

```
layers = 6;
output = {};
eqTriangle[length_, Δx_, Δy_, Δz_] :=
  Graphics3D[{Opacity[0], EdgeForm[Thick], Polygon[{{(-length / 2) + Δx, Δy, Δz},
      {Δx, (length * Sqrt[3] / 2) + Δy, Δz}, {(length / 2) + Δx, Δy, Δz}}]}];
radius[length_] := length / Sqrt[3];
pyramidUp[length_, Δx_, Δy_, Δz_] := Graphics3D[
  {Opacity[0], EdgeForm[Thick], Tetrahedron[{{(radius[length]) * Cos[7 π / 6] + Δx,
      (radius[length]) * Sin[7 π / 6] + Δy, (radius[length]) * Sin[7 π / 6] + Δz},
    {Δx, (radius[length]) + Δy, (radius[length]) * Sin[7 π / 6] + Δz},
    {(radius[length]) * Cos[11 π / 6] + Δx, (radius[length]) * Sin[11 π / 6] + Δy,
      (radius[length]) * Sin[7 π / 6] + Δz}, {Δx, Δy, (radius[length]) + Δz}}]}];
pyramidDown[length_, Δx_, Δy_, Δz_] := Graphics3D[
  {Opacity[0], EdgeForm[Thick], Tetrahedron[{{(radius[length]) * Cos[7 π / 6] + Δx,
      (radius[length]) * Sin[7 π / 6] + Δy, - (radius[length]) * Sin[7 π / 6] + Δz},
    {Δx, (radius[length]) + Δy, - (radius[length]) * Sin[7 π / 6] + Δz},
    {(radius[length]) * Cos[11 π / 6] + Δx, (radius[length]) * Sin[11 π / 6] + Δy,
      - (radius[length]) * Sin[7 π / 6] + Δz}, {Δx, Δy, - (radius[length]) + Δz}}]}];
serpPyramid[length_, Δx_, Δy_, Δz_, numLayers_] :=
  If[numLayers == layers, AppendTo[output, pyramidUp[length, Δx, Δy, Δz]];
   serpPyramid[length / 2, Δx, Δy, Δz, numLayers - 1],
   AppendTo[output, pyramidDown[length, Δx, Δy, Δz]]; If[numLayers == 0,
    "Base reached", serpPyramid[length / 2, (radius[length]) * Cos[7 π / 6] + Δx,
     (radius[length]) * Sin[7 π / 6] + Δy, (radius[length]) * Sin[7 π / 6] + Δz,
     numLayers - 1]; serpPyramid[length / 2, Δx, (radius[length]) + Δy,
     (radius[length]) * Sin[7 π / 6] + Δz, numLayers - 1]; serpPyramid[length / 2,
     (radius[length]) * Cos[11 π / 6] + Δx, (radius[length]) * Sin[11 π / 6] + Δy,
     (radius[length]) * Sin[7 π / 6] + Δz, numLayers - 1];
    serpPyramid[length / 2, Δx, Δy, (radius[length]) + Δz, numLayers - 1]]];

serpPyramid[16, 20, 0, 0, layers];
Show[output]
Export["Sierpinski.Pyramid.pdf", EvaluationNotebook[]];
```

Out[64]=