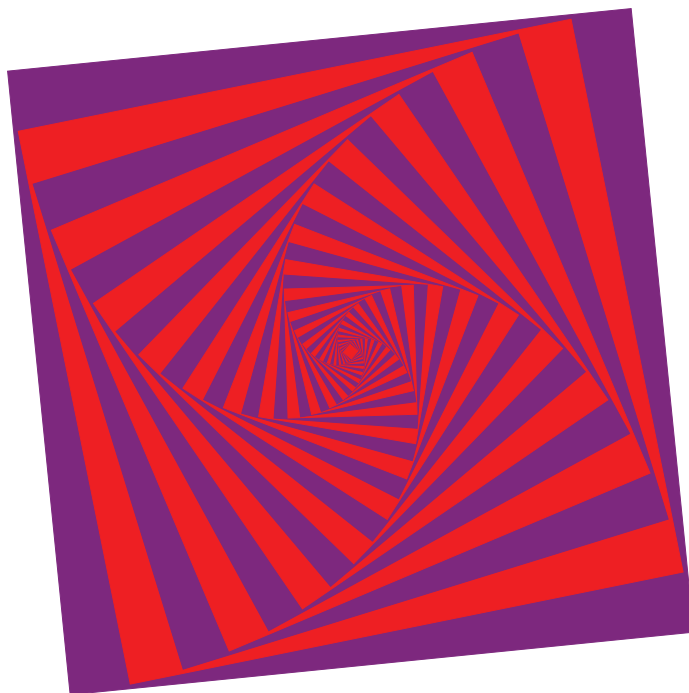# Wolfram Language

Gallery of Tweetable Programs

The Wolfram Language allows programmers to operate at a significantly higher level than ever before by leveraging built-in computational intelligence that relies on a vast depth of algorithms and real-world knowledge carefully integrated over three decades. Scalable for programs from tiny to huge, with immediate deployment locally and in the cloud, the Wolfram Language builds on clear principles—and an elegant unified symbolic structure—to create what is emerging as the world's most productive programming language and the first true computational communication language for humans and AIs. This gallery shows a few examples of tiny programs in the Wolfram Language—and the big things they can do...

Core Language & Structure $f[x]$	Data Manipulation & Analysis	Visualization & Graphics
Machine Learning	Symbolic & Numeric Computation x^2+y	Strings & Text
Graphs & Networks	Images	Geometry
Sound	Knowledge Representation & Natural Language	Time-Related Computation
Geographic Data & Computation	Scientific and Medical Data & Computation	Engineering Data & Computation
Financial Data & Computation	Social, Cultural & Linguistic Data	Higher Mathematical Computation
Notebook Documents & Presentation	User Interface Construction	System Operation & Setup
External Interfaces & Connections	Cloud & Deployment	Recent Features

Graphics[{White, Riffle[NestList[Scale[Rotate[#, 0.1], 0.9] &, Rectangle[], 40], {Purple, Red}}]]

```
c=EntityValue[CityData[{Large,"France"}],"Position"];
GeoGraphics[{Red,Thick,Line@c[[Last[FindShortestTour[c]]]]}]
```
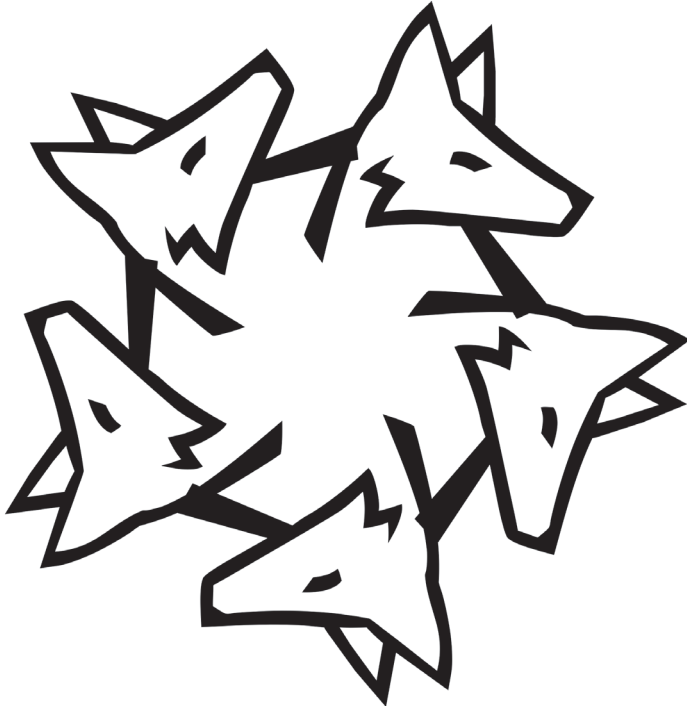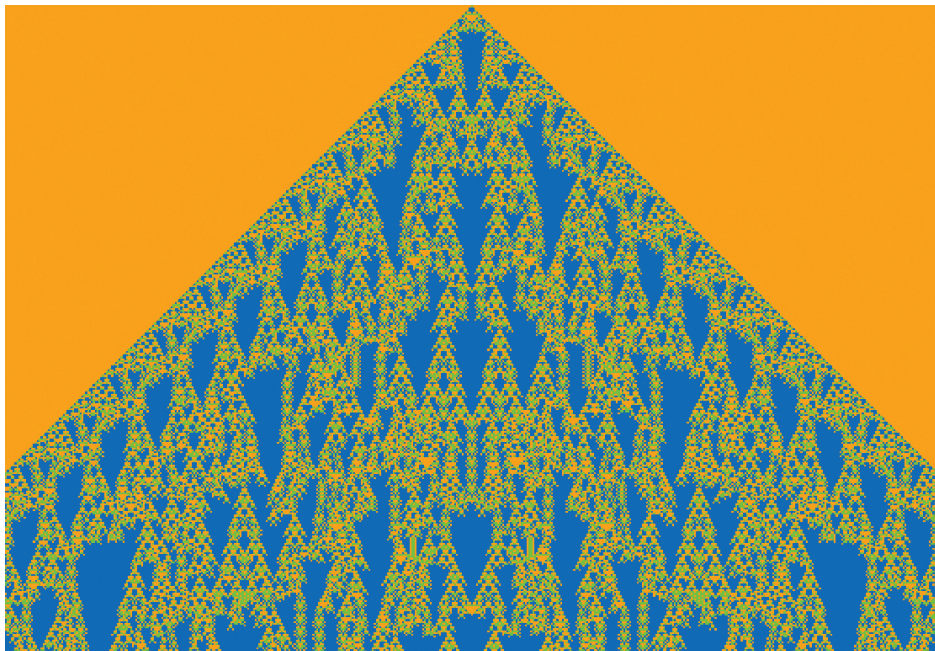
Graphics[Table[Rotate[Text[Style[\[WolframLanguageLogo],120, FontFamily->"Times"],{1,1.5}],i 2 Pi/5,{0,0}],{i,1,5}]]
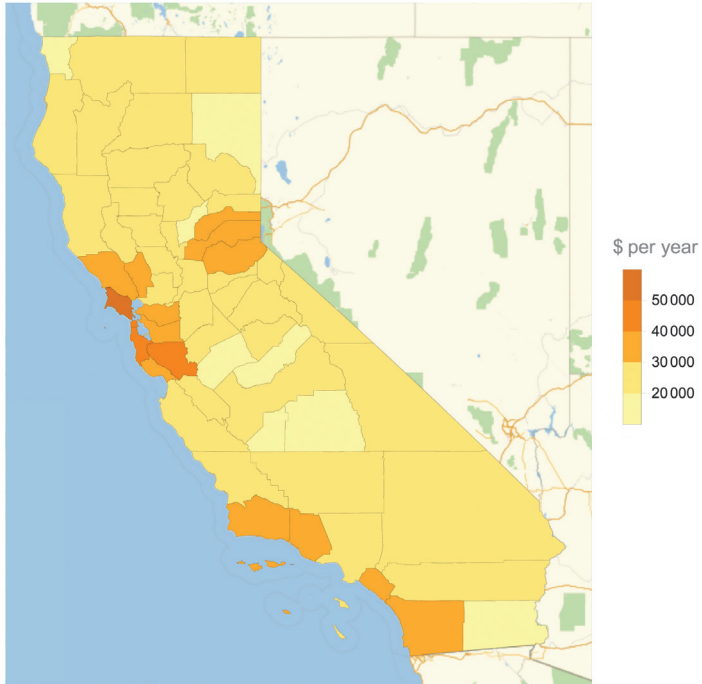
ArrayPlot[CellularAutomaton[{1635, {3, 1}},
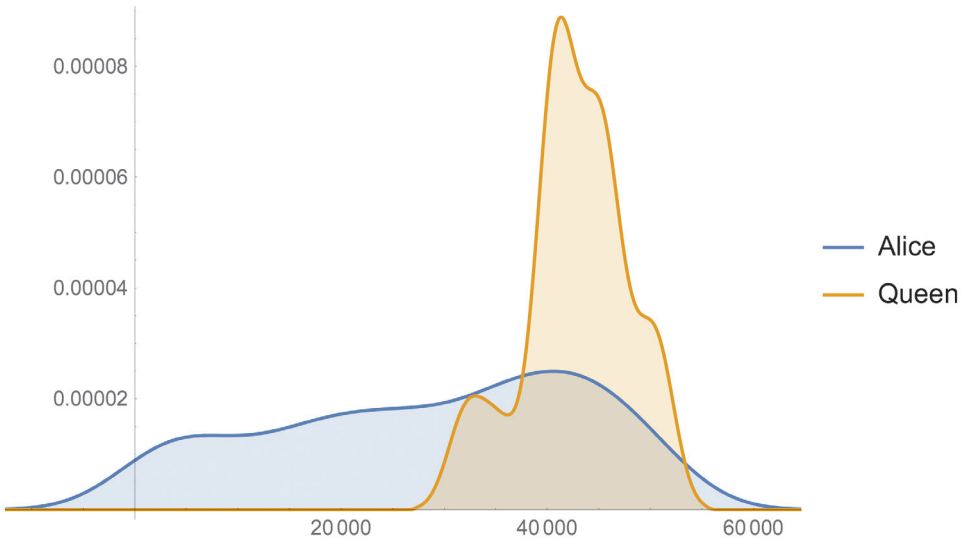   {{1}, 0}, 500], ColorFunction -> (Hue[.1 + .5#] &)]

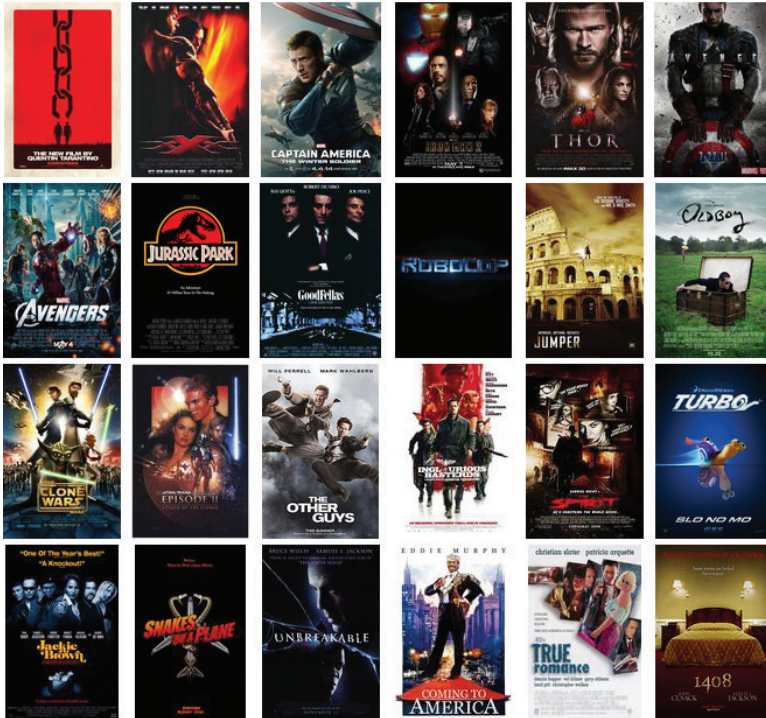GeoRegionValuePlot[california ["Subdivisions"]->"PerCapitaIncome"]

```
SmoothHistogram[Legended[First /@ StringPosition[
    ExampleData@{"Text", "AliceInWonderland"}, #], #] & /@
   {"Alice", "Queen"}, Filling -> Axis]
```
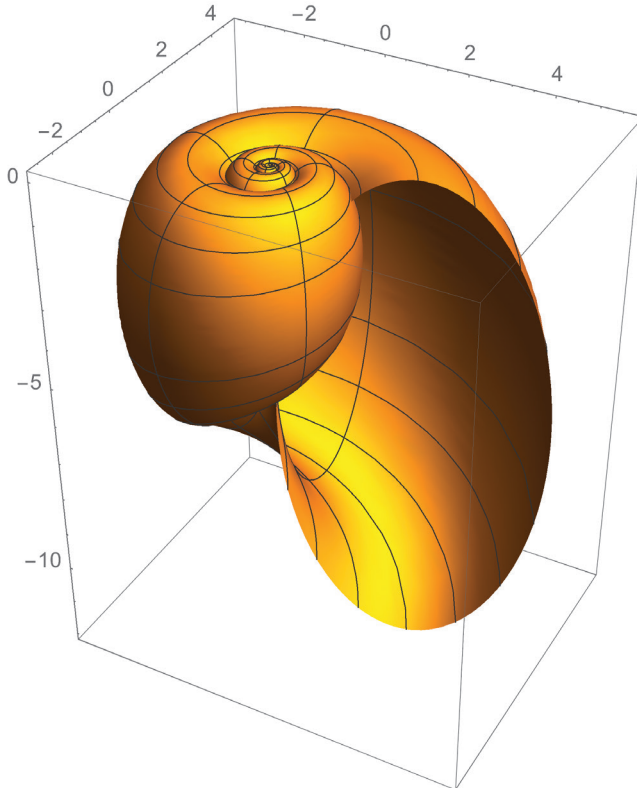
Grid@Partition[DeleteMissing[#["Image"] & /@
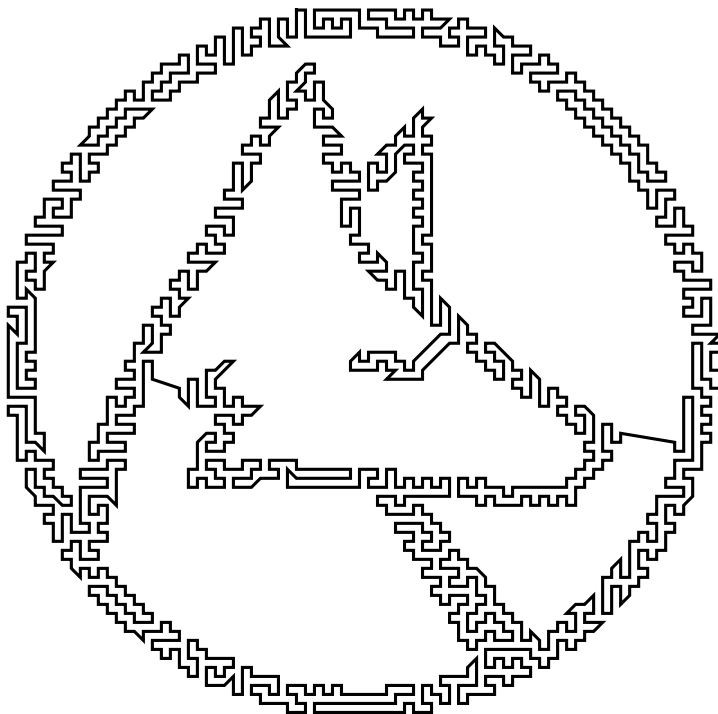Take[samuel jackson ["MovieAppearances"], 24]], 6]

ParametricPlot3D[1.2^v {Cos[v] (1 + Cos[u]),
  - Sin[v] (1 + Cos[u]), -2 (1 + Sin[u])}, {u, 0, 2 Pi}, {v, -15, 6},
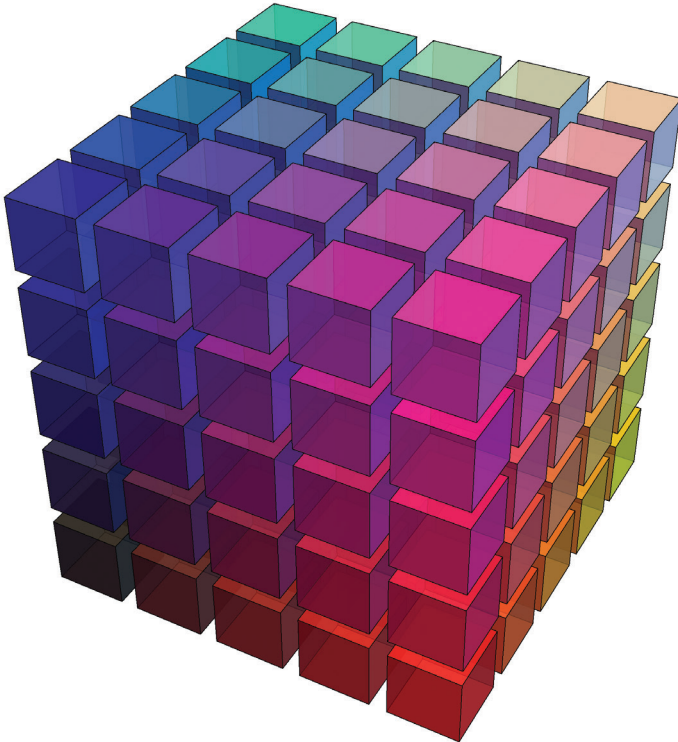 PlotRange -> All, PlotPoints -> 40]

```
p = PixelValuePositions[Binarize[Rasterize[
    Style[\[WolframLanguageLogoCircle], 80]]], 0];
Graphics[Line[p[[FindShortestTour[p][[2]]]]]]
```

```
Graphics3D[{RGBColor[#/5], Opacity[.8], Cuboid[#, # + .8]} & /@
  Tuples@Table[Range[5], {3}]]
```

Grid[Partition[Column[{#, DominantColors[#]}, Alignment -> Center] & /@ (#["Image"] & /@ RandomSample[van gogh artwork , 9]), 3]]
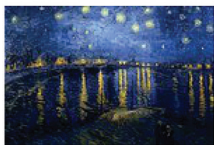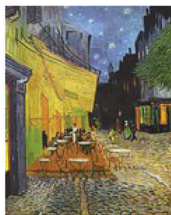
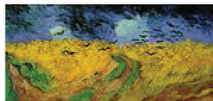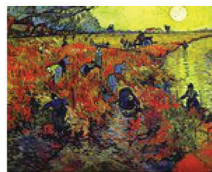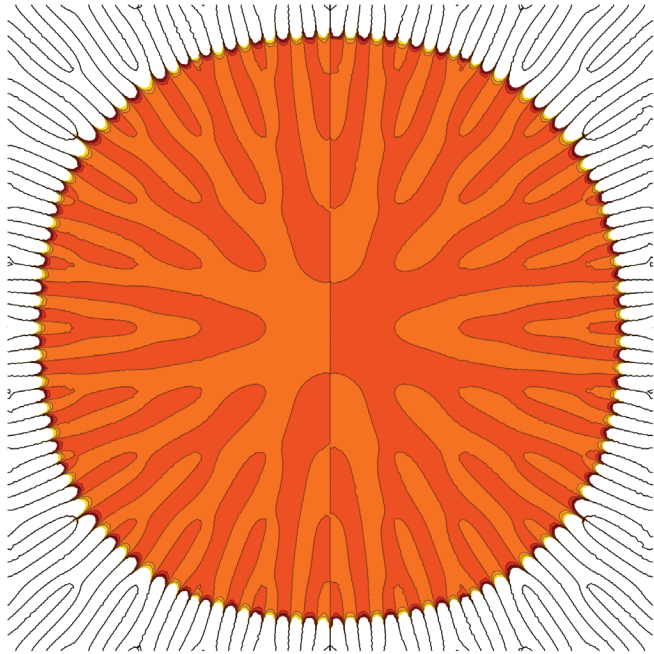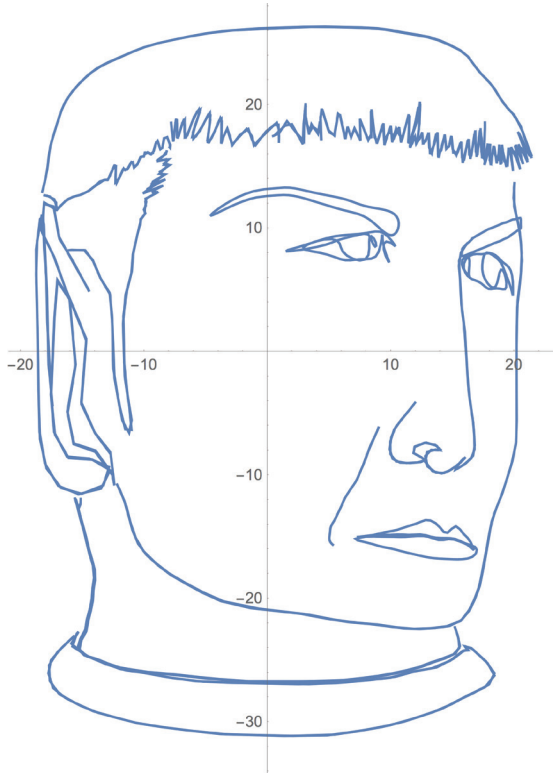ContourPlot[Evaluate[Re[Product[x + I y - (a + I b), {a, -5, 5}, {b, -5, 5}]]],
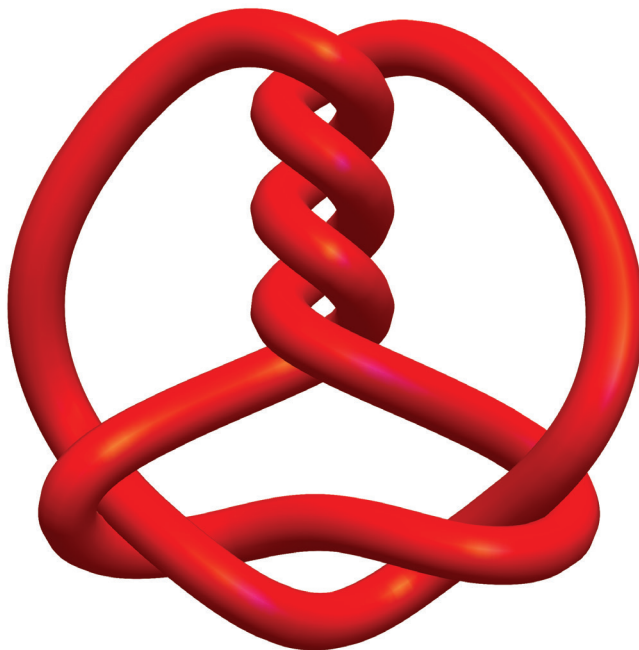{x, -5, 5}, {y, -5, 5}, ColorFunction -> "SolarColors"]

c = spock curve equation [t]; ParametricPlot[Evaluate[Sign[#]
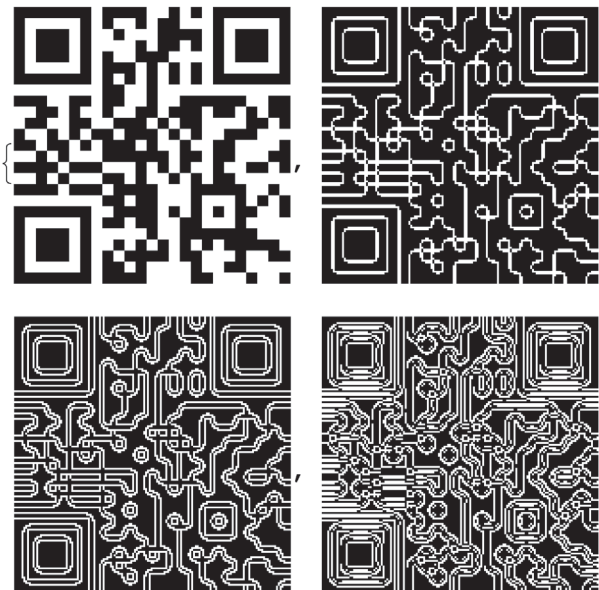   Abs[#]^(2/3) &@c], {t, 0, 72 Pi}, Exclusions -> None]

Graphics3D[{Red, Specularity[White, 70], KnotData[{8, 3}, "ImageData"]}, Boxed -> False, ViewPoint -> {0, 0.1, 5}]

NestList[EdgeDetect, BarcodeImage[
  "http://wolframtap.tumblr.com", "QR"], 3]

{ , ,

, }

GeoGraphics[{EdgeForm[Black],{GeoStyling[{"Image",#["Flag"]}],
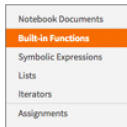Polygon[#]}&/@ african countries },GeoBackground->White]

Get Started with the Wolfram Language:

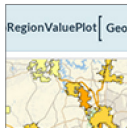Elementary Introduction to
the Wolfram Language
wolfr.am/eiwl

Fast Introduction for Programmers
wolfr.am/fastintro

Free Wolfram Language Courses
wolfram.com/wolfram-u

Gallery of Tweetable Programs
wolframtap.tumblr.com

Learn how to tweet a program: wolfr.am/tweet-a-pgm