

```
dir = SetDirectory[NotebookDirectory[]]
netECA18 = Import["netECA18-r200.wlnet"]
```

In[4710]:=

```
numCA[r_, k_] := k^ (1 + (k - 1) (2 r + 1))
randomCA[r_, k_] := RandomInteger[{0, numCA[r, k] - 1}]
runCA[p_Integer, r_, k_, W_Integer, H_Integer] :=
  Image[ArrayPlot[CellularAutomaton[{p, {k, 1}, r}, RandomInteger[1, W], H - 1],
    ImageSize -> {W, H}, ColorRules -> {0 -> RandomColor[],
      1 -> RandomColor[], 3 -> RandomColor[], 4 -> RandomColor[],
      5 -> RandomColor[], 6 -> RandomColor[], 7 -> RandomColor[],
      8 -> RandomColor[], 9 -> RandomColor[], 10 -> RandomColor[],
      11 -> RandomColor[], 12 -> RandomColor[], 13 -> RandomColor[],
      14 -> RandomColor[], 15 -> RandomColor[], 16 -> RandomColor[],
      17 -> RandomColor[], 18 -> RandomColor[], 19 -> RandomColor[],
      20 -> RandomColor[], 21 -> RandomColor[], 22 -> RandomColor[],
      23 -> RandomColor[], 24 -> RandomColor[], 25 -> RandomColor[],
      26 -> RandomColor[], 27 -> RandomColor[]}, Frame -> False]]
```

In[4852]:=

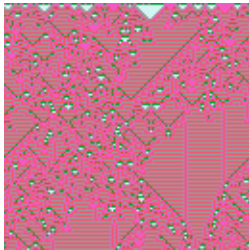
```
checkCA[image_] := netECA18[image]
labelCA[image_, rule_, r_, k_] :=
  Labeled[image, {rule, k, r}, LabelStyle -> Small]
printCA[image_, rule_, r_, k_] :=
  labelCA[image, rule, r, k] -> netECA18[image, {"TopProbabilities", 2}]
```

In[4914]:=

```
HuntCA[range_, colours_, iter_] :=
  For[i = 1, i < iter, i++, Module[{rule, image}, rule = randomCA[range, colours];
    image = runCA[rule, range, colours, 128, 128];
    If[checkCA[image] == 4, Print[printCA[image, rule, range, colours]]]]]
```

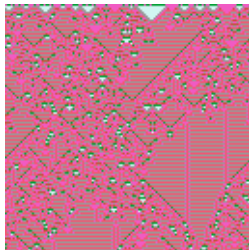
```
In[4842]:= rule = randomCA[1, 6]
           image = runCA[rule, 1, 6, 128, 128]
           checkCA[image]
           printCA[image, rule, 1, 6]
```

Out[4842]= 2 407 604 906 483



Out[4843]=

Out[4844]= 4



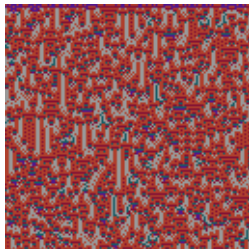
Out[4845]=

→ {3 → 0.00370274, 4 → 0.996297}

{2 407 604 906 483, 6, 1}

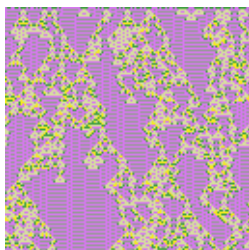
## Hunting CAs!

```
In[4851]:= HuntCA[1, 6]
```



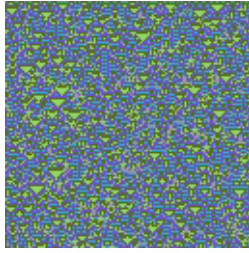
{278 077 569 409, 6, 1}

→ {3 →  $3.46807 \times 10^{-6}$ , 4 → 0.999997}



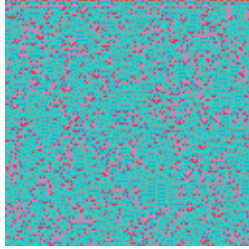
{50 380 961 690, 6, 1}

→ {3 → 0.00937252, 4 → 0.990627}



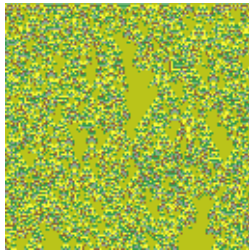
{2508928868903, 6, 1}

$\rightarrow \{3 \rightarrow 0.306316, 4 \rightarrow 0.693684\}$



{1013290364181, 6, 1}

$\rightarrow \{3 \rightarrow 0.0453, 4 \rightarrow 0.9547\}$



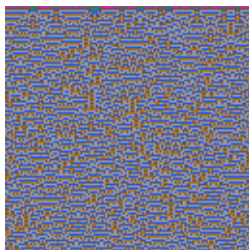
{777890217114, 6, 1}

$\rightarrow \{3 \rightarrow 1.13456 \times 10^{-13}, 4 \rightarrow 1.\}$



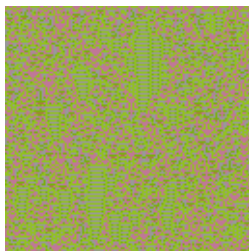
{1631458651411, 6, 1}

$\rightarrow \{3 \rightarrow 0.00240222, 4 \rightarrow 0.997598\}$



{1131714823247, 6, 1}

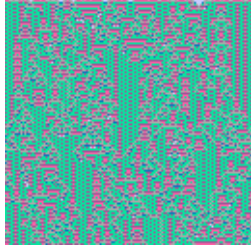
$\rightarrow \{3 \rightarrow 0.0000560834, 4 \rightarrow 0.999944\}$



{1781084984048, 6, 1}

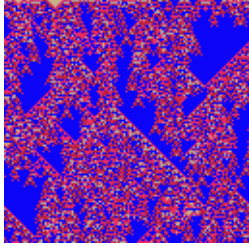
$\rightarrow \{3 \rightarrow 0.00831018, 4 \rightarrow 0.99169\}$

In[4855]:= **HuntCA[1, 7]**



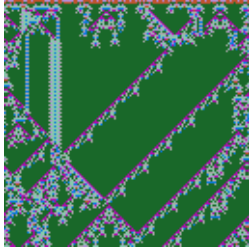
$\rightarrow \{3 \rightarrow 0.0974469, 4 \rightarrow 0.902553\}$

{196 093 510 707 309, 7, 1}



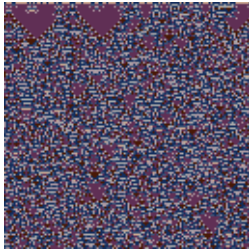
$\rightarrow \{3 \rightarrow 1.88613 \times 10^{-15}, 4 \rightarrow 1.\}$

{11 383 727 196 490 999, 7, 1}



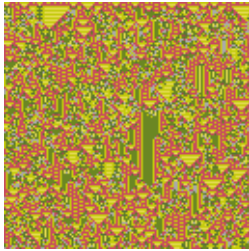
$\rightarrow \{3 \rightarrow 2.5636 \times 10^{-20}, 4 \rightarrow 1.\}$

{7 438 336 472 358 072, 7, 1}



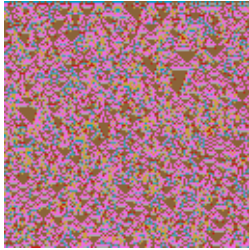
$\rightarrow \{3 \rightarrow 0.113771, 4 \rightarrow 0.886229\}$

{1 288 497 634 778 373, 7, 1}



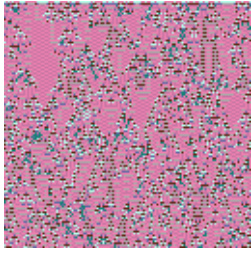
$\rightarrow \{3 \rightarrow 1.13714 \times 10^{-9}, 4 \rightarrow 1.\}$

{9 133 926 185 871 686, 7, 1}



$\rightarrow \{3 \rightarrow 0.000625904, 4 \rightarrow 0.999374\}$

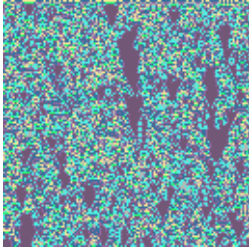
{2 491 834 055 458 713, 7, 1}



$\rightarrow \{3 \rightarrow 0.000524598, 4 \rightarrow 0.999475\}$

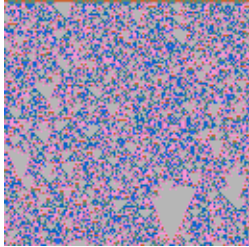
{2 190 765 682 666 143, 7, 1}

In[4875]:= HuntCA[1, 8]



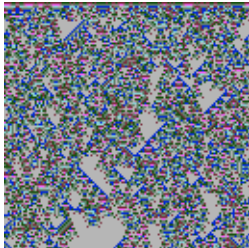
$\rightarrow \{3 \rightarrow 2.75958 \times 10^{-9}, 4 \rightarrow 1.\}$

{9 757 791 414 997 421 710, 8, 1}



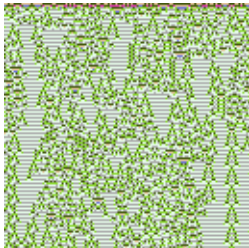
$\rightarrow \{3 \rightarrow 8.98991 \times 10^{-9}, 4 \rightarrow 1.\}$

{19 525 477 494 925 490 266, 8, 1}



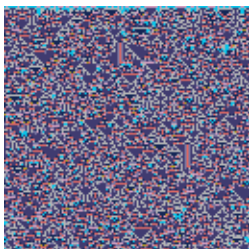
$\rightarrow \{3 \rightarrow 3.54755 \times 10^{-16}, 4 \rightarrow 1.\}$

{36 268 119 959 217 450 303, 8, 1}



$\rightarrow \{3 \rightarrow 1.961 \times 10^{-8}, 4 \rightarrow 1.\}$

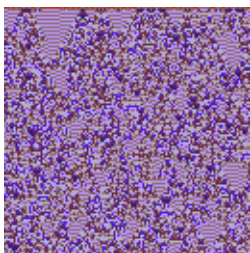
{63 887 547 974 362 480 971, 8, 1}



$\rightarrow \{3 \rightarrow 0.0204595, 4 \rightarrow 0.979541\}$

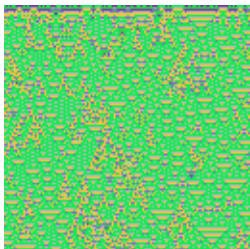
{70 515 519 422 128 400 404, 8, 1}





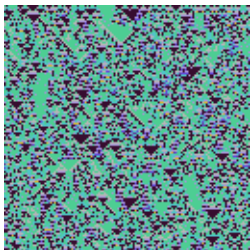
$\rightarrow \{3 \rightarrow 0.000397198, 4 \rightarrow 0.999603\}$

{24 058 366 061 067 884 083, 8, 1}



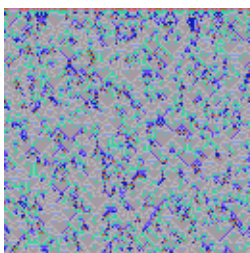
$\rightarrow \{3 \rightarrow 0.362144, 4 \rightarrow 0.637856\}$

{59 523 336 538 946 311 602, 8, 1}



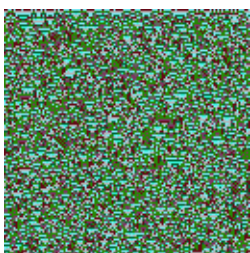
$\rightarrow \{3 \rightarrow 0.363877, 4 \rightarrow 0.636123\}$

{15 301 970 314 647 274 160, 8, 1}



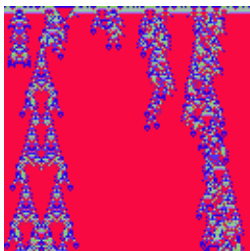
$\rightarrow \{3 \rightarrow 0.0186145, 4 \rightarrow 0.981385\}$

{66 411 847 739 168 197 162, 8, 1}



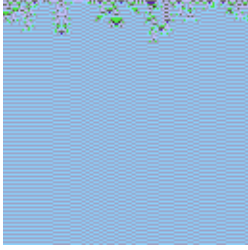
$\rightarrow \{3 \rightarrow 0.000277233, 4 \rightarrow 0.999723\}$

{69 229 500 165 829 944 494, 8, 1}



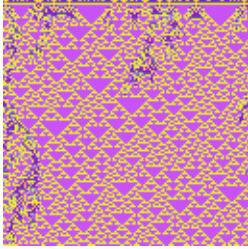
$\rightarrow \{3 \rightarrow 6.59761 \times 10^{-21}, 4 \rightarrow 1.\}$

{63 654 337 585 952 357 525, 8, 1}



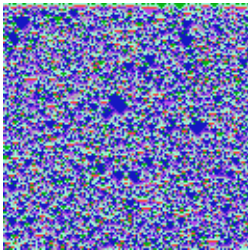
$$\rightarrow \{2 \rightarrow 0.0107361, 4 \rightarrow 0.989263\}$$

{69 272 616 330 346 731 057, 8, 1}



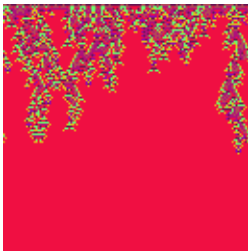
$$\rightarrow \{3 \rightarrow 5.35958 \times 10^{-10}, 4 \rightarrow 1.\}$$

{63 384 153 133 414 106 916, 8, 1}



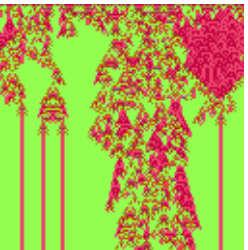
$$\rightarrow \{3 \rightarrow 0.283413, 4 \rightarrow 0.716587\}$$

{38 882 218 027 641 463 343, 8, 1}



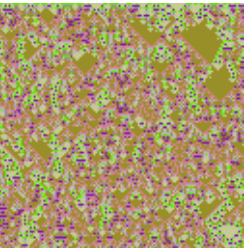
$$\rightarrow \{3 \rightarrow 9.37134 \times 10^{-15}, 4 \rightarrow 1.\}$$

{73 746 461 437 301 618 895, 8, 1}



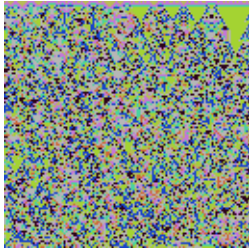
$$\rightarrow \{3 \rightarrow 3.27195 \times 10^{-18}, 4 \rightarrow 1.\}$$

{2 999 906 687 834 288 523, 8, 1}



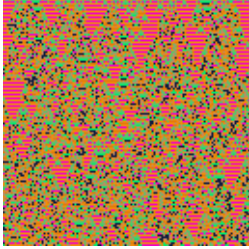
$$\rightarrow \{3 \rightarrow 0.00754642, 4 \rightarrow 0.992454\}$$

{6 586 142 795 765 945 103, 8, 1}



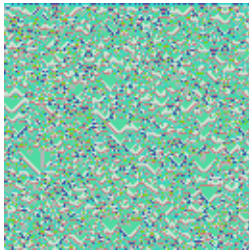
$\rightarrow \{3 \rightarrow 0.0000143466, 4 \rightarrow 0.999986\}$

{65 604 687 095 809 991 172, 8, 1}



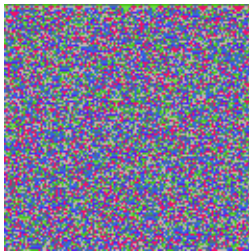
$\rightarrow \{3 \rightarrow 2.94868 \times 10^{-7}, 4 \rightarrow 1.\}$

{1369 965 314 514 540 877, 8, 1}



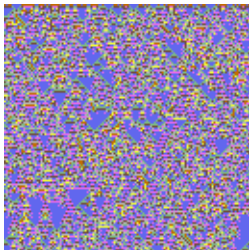
$\rightarrow \{3 \rightarrow 0.00155919, 4 \rightarrow 0.998441\}$

{72 397 453 170 036 337 787, 8, 1}



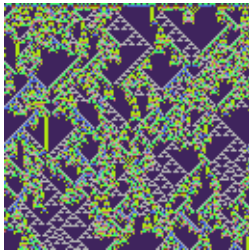
$\rightarrow \{3 \rightarrow 0.0539426, 4 \rightarrow 0.946057\}$

{68 177 053 609 715 092 127, 8, 1}



$\rightarrow \{3 \rightarrow 0.0017613, 4 \rightarrow 0.998239\}$

{14 720 799 459 741 168 503, 8, 1}

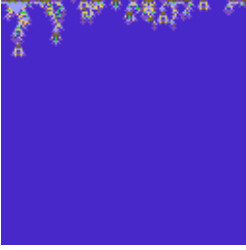
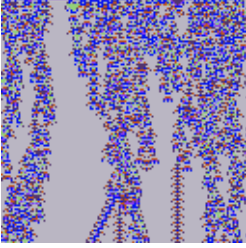
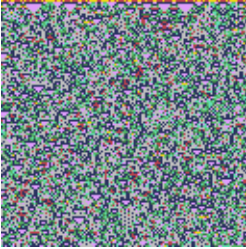
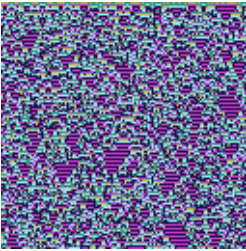
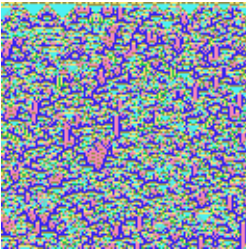
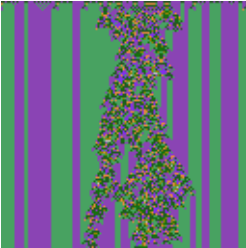


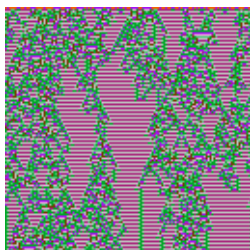
$\rightarrow \{2 \rightarrow 3.70609 \times 10^{-27}, 4 \rightarrow 1.\}$

{31 822 094 881 294 732 782, 8, 1}

In[4885]:= HuntCA[1, 9]

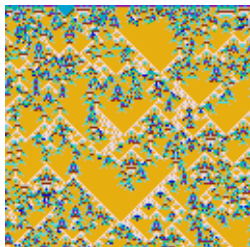



 $\rightarrow \{2 \rightarrow 0.0353505, 4 \rightarrow 0.964649\}$ 
 $\{646\,035\,855\,311\,939\,168\,847\,420, 9, 1\}$ 

 $\rightarrow \{2 \rightarrow 8.93587 \times 10^{-26}, 4 \rightarrow 1.\}$ 
 $\{219\,390\,367\,562\,132\,361\,530\,256, 9, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000041897, 4 \rightarrow 0.999958\}$ 
 $\{82\,558\,008\,626\,656\,451\,461\,088, 9, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.242961, 4 \rightarrow 0.757039\}$ 
 $\{562\,913\,400\,512\,462\,157\,305\,909, 9, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.386123, 4 \rightarrow 0.613877\}$ 
 $\{20\,573\,006\,756\,685\,607\,921\,009, 9, 1\}$ 

 $\rightarrow \{2 \rightarrow 1.16985 \times 10^{-15}, 4 \rightarrow 1.\}$ 
 $\{182\,021\,981\,846\,151\,757\,658\,076, 9, 1\}$



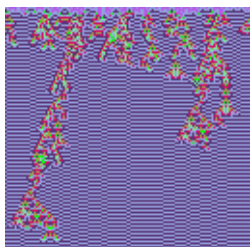
$$\rightarrow \{3 \rightarrow 3.82763 \times 10^{-24}, 4 \rightarrow 1.\}$$

{613 772 012 358 575 321 140 571, 9, 1}



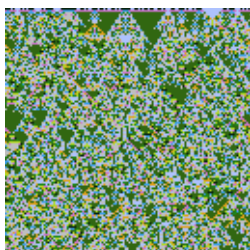
$$\rightarrow \{3 \rightarrow 6.7949 \times 10^{-15}, 4 \rightarrow 1.\}$$

{376 443 133 396 427 783 551 221, 9, 1}



$$\rightarrow \{3 \rightarrow 6.35385 \times 10^{-7}, 4 \rightarrow 0.999999\}$$

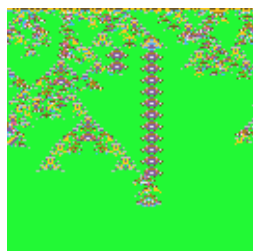
{427 485 816 180 055 719 957 283, 9, 1}



$$\rightarrow \{3 \rightarrow 8.24513 \times 10^{-11}, 4 \rightarrow 1.\}$$

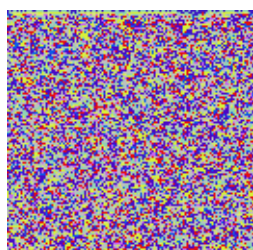
{644 318 384 930 138 158 138 265, 9, 1}

In[4900]:= **HuntCA[2, 9]**



$$\rightarrow \{3 \rightarrow 2.22918 \times 10^{-15}, 4 \rightarrow 1.\}$$

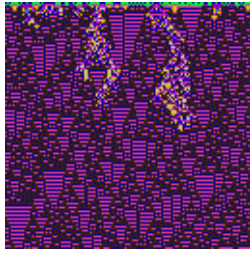
{1 208 710 226 206 842 389 681 960 584 011 973 770 116, 9, 2}



$$\rightarrow \{3 \rightarrow 0.115453, 4 \rightarrow 0.884547\}$$

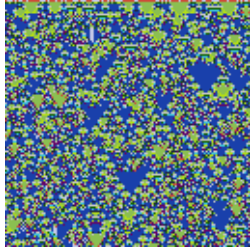
{1 247 196 082 487 162 288 538 300 865 294 248 235 555, 9, 2}

In[4915]:= HuntCA[1, 10, 200]



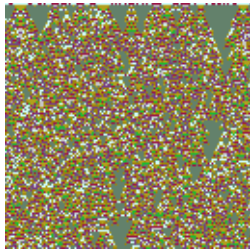
$\rightarrow \{3 \rightarrow 0.0127476, 4 \rightarrow 0.987252\}$

{9683487873571432371431545905, 10, 1}



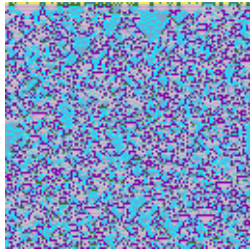
$\rightarrow \{3 \rightarrow 0.140878, 4 \rightarrow 0.859122\}$

{9706235929575865554413586399, 10, 1}



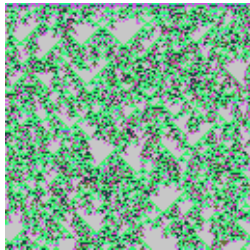
$\rightarrow \{3 \rightarrow 0.00723331, 4 \rightarrow 0.992767\}$

{9805776006614595942196459662, 10, 1}



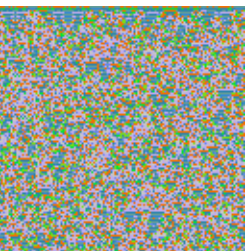
$\rightarrow \{3 \rightarrow 0.0000497526, 4 \rightarrow 0.99995\}$

{9452946742904279239736972253, 10, 1}



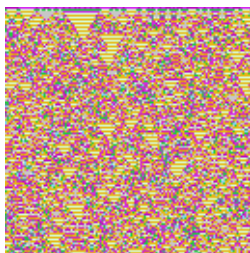
$\rightarrow \{3 \rightarrow 0.000036334, 4 \rightarrow 0.999964\}$

{2506533465928065463212226157, 10, 1}



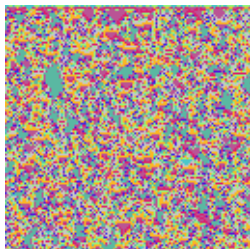
$\rightarrow \{3 \rightarrow 0.086027, 4 \rightarrow 0.913973\}$

{614390607640311327135267479, 10, 1}



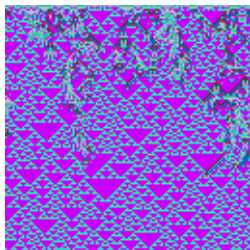
$$\rightarrow \{3 \rightarrow 0.320123, 4 \rightarrow 0.679877\}$$

{4051223313870335996292336886, 10, 1}



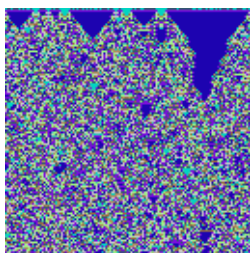
$$\rightarrow \{3 \rightarrow 1.77921 \times 10^{-10}, 4 \rightarrow 1.\}$$

{9588144289938070229333421493, 10, 1}



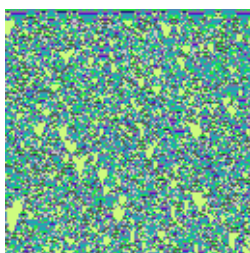
$$\rightarrow \{3 \rightarrow 6.30341 \times 10^{-11}, 4 \rightarrow 1.\}$$

{9304415959765352971001530572, 10, 1}



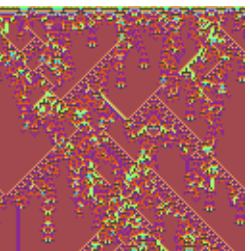
$$\rightarrow \{3 \rightarrow 4.85769 \times 10^{-8}, 4 \rightarrow 1.\}$$

{9749805169231162369485046660, 10, 1}



$$\rightarrow \{3 \rightarrow 0.00136545, 4 \rightarrow 0.998635\}$$

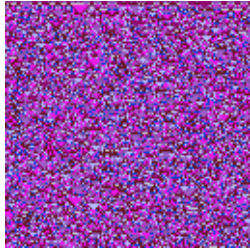
{3611883566021161798755258774, 10, 1}



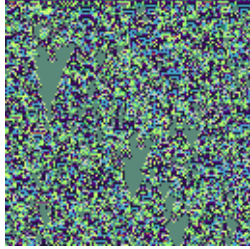
$$\rightarrow \{3 \rightarrow 3.31092 \times 10^{-8}, 4 \rightarrow 1.\}$$

{830194270335543504611469667, 10, 1}



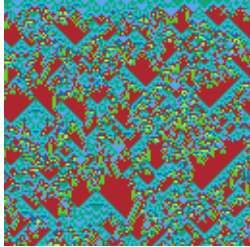

 $\rightarrow \{3 \rightarrow 0.148006, 4 \rightarrow 0.851994\}$ 

{9763167790095071631137559230, 10, 1}

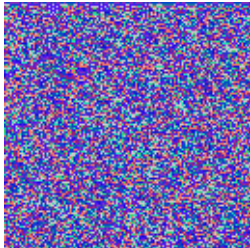

 $\rightarrow \{2 \rightarrow 2.79208 \times 10^{-9}, 4 \rightarrow 1.\}$ 

{3106797987843203709993145089, 10, 1}

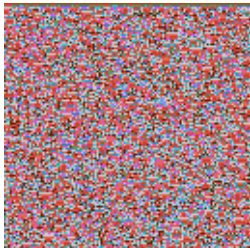
In[4928]:= **HuntCA[1, 11, 300]**


 $\rightarrow \{3 \rightarrow 2.72059 \times 10^{-12}, 4 \rightarrow 1.\}$ 

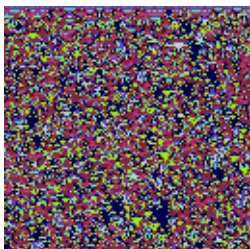
{65800367042050535414109347211322, 11, 1}


 $\rightarrow \{3 \rightarrow 0.133928, 4 \rightarrow 0.866072\}$ 

{68528731922747453533841754775071, 11, 1}

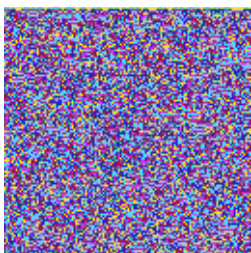

 $\rightarrow \{3 \rightarrow 0.00411751, 4 \rightarrow 0.995883\}$ 

{20739251596572178036299812555267, 11, 1}


 $\rightarrow \{3 \rightarrow 0.0301967, 4 \rightarrow 0.969803\}$ 

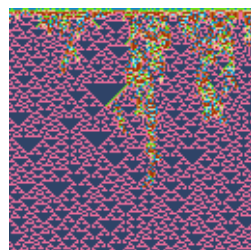
{54101792822834216789683078778665, 11, 1}





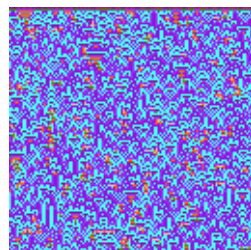
$\rightarrow \{3 \rightarrow 0.0317671, 4 \rightarrow 0.968233\}$

{36 967 248 178 399 506 242 678 634 552 114, 11, 1}



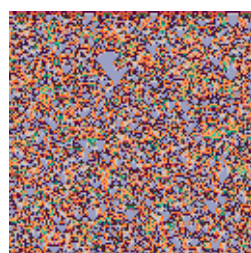
$\rightarrow \{3 \rightarrow 3.2148 \times 10^{-6}, 4 \rightarrow 0.999997\}$

{150 332 066 249 311 358 941 244 796 618 943, 11, 1}



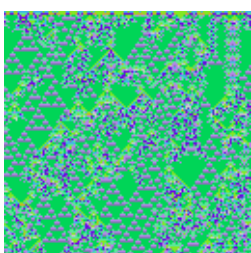
$\rightarrow \{3 \rightarrow 0.0104868, 4 \rightarrow 0.989513\}$

{163 672 538 083 665 381 223 907 938 948 942, 11, 1}



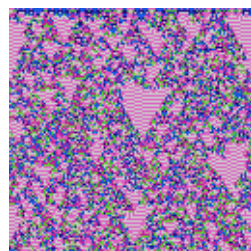
$\rightarrow \{3 \rightarrow 0.070188, 4 \rightarrow 0.929812\}$

{150 574 784 127 728 630 405 992 769 508 510, 11, 1}



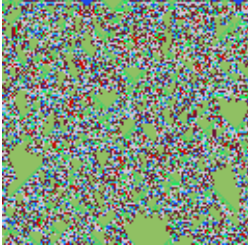
$\rightarrow \{2 \rightarrow 3.64619 \times 10^{-15}, 4 \rightarrow 1.\}$

{24 621 511 550 399 096 293 643 034 636 399, 11, 1}



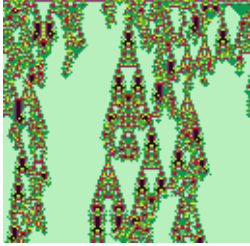
$\rightarrow \{3 \rightarrow 0.0496504, 4 \rightarrow 0.95035\}$

{126 668 066 445 134 680 585 898 937 708 385, 11, 1}



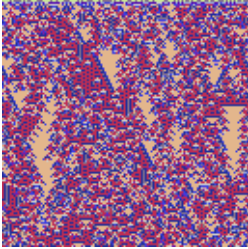
$$\rightarrow \{3 \rightarrow 0.000501042, 4 \rightarrow 0.999499\}$$

{65 557 669 494 776 798 478 704 652 307 693, 11, 1}



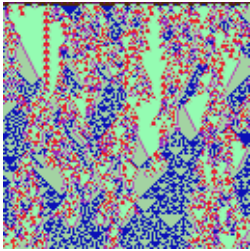
$$\rightarrow \{2 \rightarrow 5.2424 \times 10^{-16}, 4 \rightarrow 1.\}$$

{187 178 209 656 079 213 070 842 243 962 703, 11, 1}



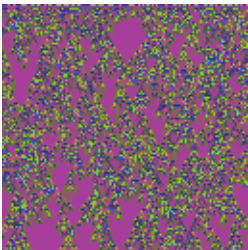
$$\rightarrow \{3 \rightarrow 1.26164 \times 10^{-15}, 4 \rightarrow 1.\}$$

{39 162 898 601 854 477 697 982 595 657 502, 11, 1}



$$\rightarrow \{3 \rightarrow 2.32885 \times 10^{-16}, 4 \rightarrow 1.\}$$

{157 572 356 374 651 968 337 212 563 963 647, 11, 1}



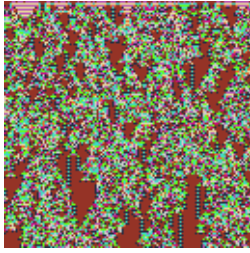
$$\rightarrow \{3 \rightarrow 0.0036935, 4 \rightarrow 0.996306\}$$

{3 013 827 945 730 792 017 026 675 260 750, 11, 1}



$$\rightarrow \{2 \rightarrow 0.0584229, 4 \rightarrow 0.941577\}$$

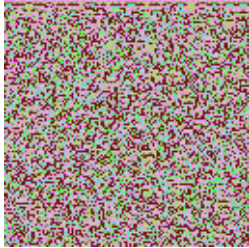
{191 925 775 043 283 599 819 953 841 783 153, 11, 1}



$$\rightarrow \{3 \rightarrow 2.71052 \times 10^{-17}, 4 \rightarrow 1.\}$$

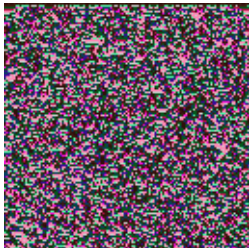
{28 626 366 406 986 548 006 910 527 395 488, 11, 1}

In[4931]:= HuntCA[1, 11, 300]



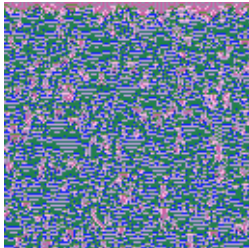
$$\rightarrow \{3 \rightarrow 0.000468536, 4 \rightarrow 0.999531\}$$

{118 706 532 918 174 541 750 284 404 552 623, 11, 1}



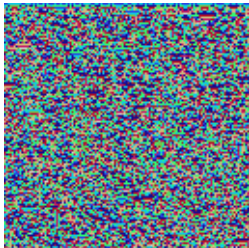
$$\rightarrow \{3 \rightarrow 0.0932717, 4 \rightarrow 0.906728\}$$

{168 980 589 178 272 903 083 205 073 738 391, 11, 1}



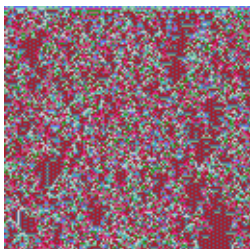
$$\rightarrow \{3 \rightarrow 0.026338, 4 \rightarrow 0.973662\}$$

{111 999 395 466 501 914 387 927 624 866 134, 11, 1}



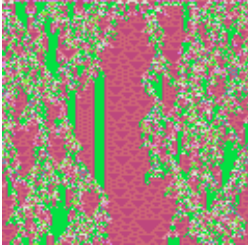
$$\rightarrow \{3 \rightarrow 0.161909, 4 \rightarrow 0.838091\}$$

{147 585 728 381 830 914 904 488 681 267 058, 11, 1}



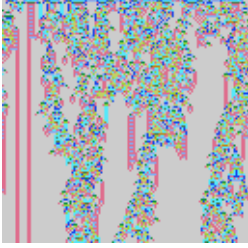
$$\rightarrow \{3 \rightarrow 1.8353 \times 10^{-12}, 4 \rightarrow 1.\}$$

{71 433 747 965 034 167 558 310 305 528 953, 11, 1}



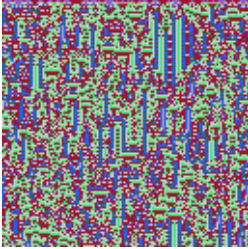
$$\rightarrow \{3 \rightarrow 2.158 \times 10^{-12}, 4 \rightarrow 1.\}$$

{55 350 684 073 302 362 334 158 137 943 063, 11, 1}



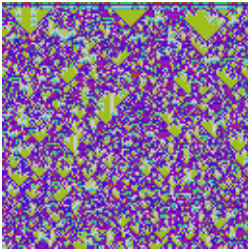
$$\rightarrow \{3 \rightarrow 1.47028 \times 10^{-14}, 4 \rightarrow 1.\}$$

{33 992 797 467 315 061 654 309 203 712 244, 11, 1}



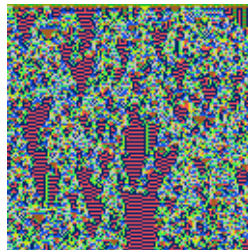
$$\rightarrow \{3 \rightarrow 0.00729539, 4 \rightarrow 0.992705\}$$

{32 774 152 342 335 762 152 590 663 948 465, 11, 1}



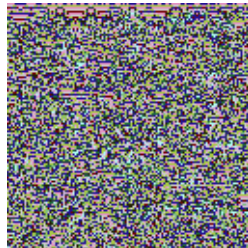
$$\rightarrow \{3 \rightarrow 0.289617, 4 \rightarrow 0.710383\}$$

{49 872 001 152 940 410 957 743 649 554 152, 11, 1}



$$\rightarrow \{3 \rightarrow 0.000603239, 4 \rightarrow 0.999397\}$$

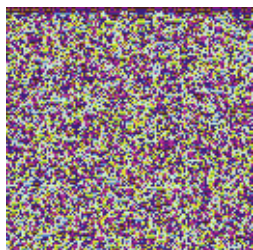
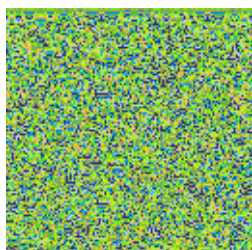
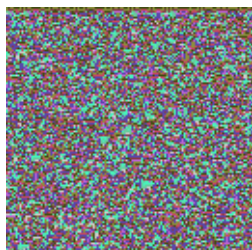
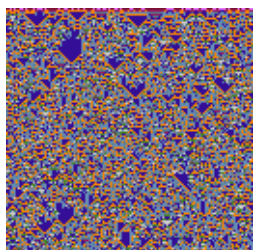
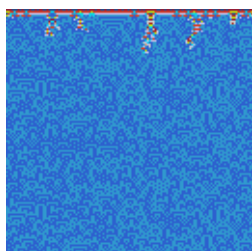
{126 889 434 422 838 808 084 104 923 097 236, 11, 1}



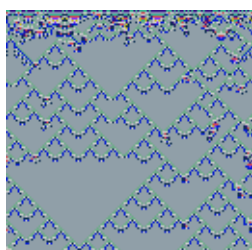
$$\rightarrow \{3 \rightarrow 0.343638, 4 \rightarrow 0.656362\}$$

{185 600 255 592 593 555 070 274 621 906 589, 11, 1}

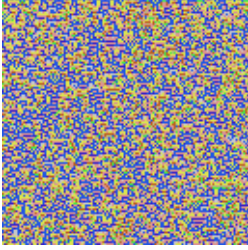
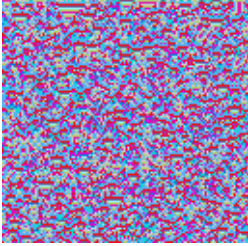
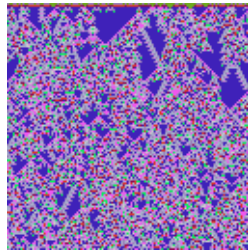
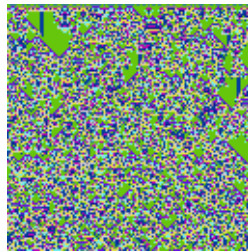
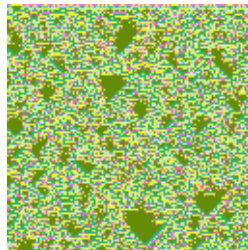
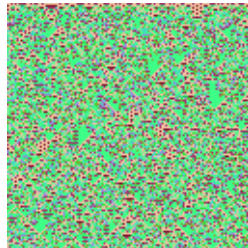


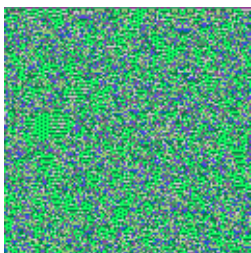

 $\rightarrow \{3 \rightarrow 0.146985, 4 \rightarrow 0.853015\}$ 
 $\{181\,062\,794\,194\,747\,398\,588\,036\,957\,985\,715, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.135079, 4 \rightarrow 0.864921\}$ 
 $\{85\,134\,294\,028\,824\,706\,722\,406\,828\,167\,689, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.308199, 4 \rightarrow 0.691801\}$ 
 $\{95\,583\,478\,934\,628\,046\,307\,652\,226\,166\,092, 11, 1\}$ 

 $\rightarrow \{2 \rightarrow 0.00171145, 4 \rightarrow 0.998289\}$ 
 $\{128\,132\,036\,954\,857\,432\,123\,488\,998\,208\,858, 11, 1\}$ 

 $\rightarrow \{2 \rightarrow 2.46326 \times 10^{-14}, 4 \rightarrow 1.\}$ 
 $\{11\,295\,597\,960\,082\,551\,209\,985\,879\,162\,632, 11, 1\}$ 

In[4945]:= **HuntCA[1, 11, 300]**


 $\rightarrow \{3 \rightarrow 0.00618735, 4 \rightarrow 0.993813\}$ 
 $\{52\,528\,724\,558\,945\,725\,955\,550\,804\,832\,095, 11, 1\}$

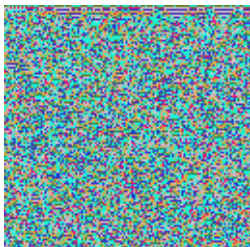



 $\rightarrow \{3 \rightarrow 0.0009776, 4 \rightarrow 0.999022\}$ 
 $\{77\,234\,952\,829\,375\,980\,853\,181\,137\,153\,153, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00524057, 4 \rightarrow 0.994759\}$ 
 $\{31\,773\,648\,351\,722\,315\,589\,288\,247\,014\,319, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0000968911, 4 \rightarrow 0.999903\}$ 
 $\{130\,135\,237\,241\,319\,718\,837\,847\,151\,417\,519, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0000898333, 4 \rightarrow 0.99991\}$ 
 $\{109\,395\,053\,725\,950\,407\,427\,163\,910\,509\,674, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 3.61047 \times 10^{-10}, 4 \rightarrow 1.\}$ 
 $\{126\,147\,039\,385\,301\,588\,060\,311\,705\,793\,681, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0269376, 4 \rightarrow 0.973062\}$ 
 $\{160\,475\,030\,466\,397\,374\,615\,097\,977\,369\,785, 11, 1\}$



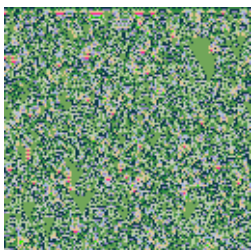
$$\rightarrow \{3 \rightarrow 3.94795 \times 10^{-7}, 4 \rightarrow 1.\}$$

{170 138 895 575 800 581 369 670 275 525 566, 11, 1}



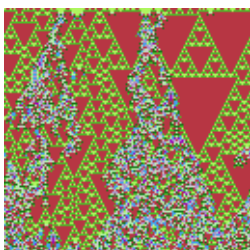
$$\rightarrow \{3 \rightarrow 0.373735, 4 \rightarrow 0.626265\}$$

{46 866 440 026 576 956 409 297 438 820 925, 11, 1}



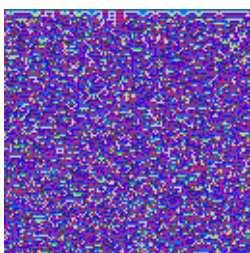
$$\rightarrow \{3 \rightarrow 0.000299027, 4 \rightarrow 0.999701\}$$

{153 428 061 130 979 680 199 597 090 384 463, 11, 1}



$$\rightarrow \{3 \rightarrow 1.01951 \times 10^{-17}, 4 \rightarrow 1.\}$$

{22 105 989 241 294 106 093 578 307 214 155, 11, 1}



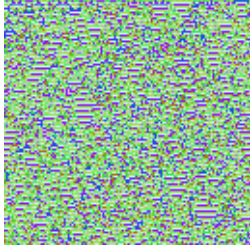
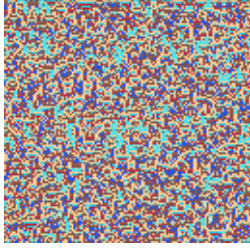
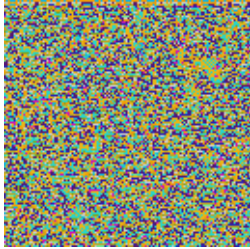
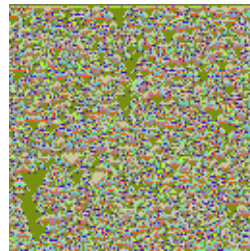
$$\rightarrow \{3 \rightarrow 0.000670092, 4 \rightarrow 0.99933\}$$

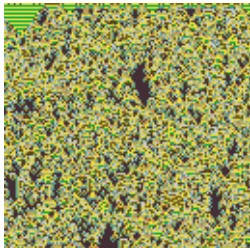
{43 379 444 213 540 412 566 942 287 865 744, 11, 1}

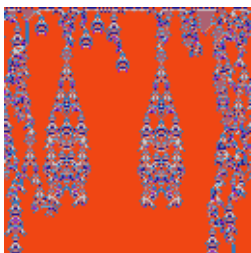


$$\rightarrow \{3 \rightarrow 1.98538 \times 10^{-18}, 4 \rightarrow 1.\}$$

{21 664 817 782 833 503 770 922 600 144 706, 11, 1}


 $\rightarrow \{3 \rightarrow 0.461821, 4 \rightarrow 0.538179\}$ 
 $\{65\,050\,385\,520\,378\,777\,405\,771\,826\,317\,940, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0544552, 4 \rightarrow 0.945545\}$ 
 $\{20\,213\,943\,660\,984\,829\,390\,623\,134\,731\,745, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.123466, 4 \rightarrow 0.876534\}$ 
 $\{23\,444\,210\,089\,271\,331\,238\,280\,563\,016\,800, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00203197, 4 \rightarrow 0.997968\}$ 
 $\{150\,012\,112\,225\,851\,173\,980\,264\,715\,577\,784, 11, 1\}$ 

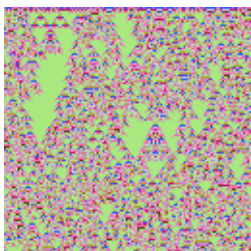
 $\rightarrow \{3 \rightarrow 0.0273746, 4 \rightarrow 0.972625\}$ 
 $\{16\,649\,674\,573\,013\,576\,255\,252\,642\,172\,198, 11, 1\}$ 

 $\rightarrow \{3 \rightarrow 1.03646 \times 10^{-12}, 4 \rightarrow 1.\}$ 
 $\{21\,031\,886\,714\,955\,287\,405\,108\,751\,210\,106, 11, 1\}$



$$\rightarrow \{3 \rightarrow 1.63687 \times 10^{-21}, 4 \rightarrow 1.\}$$

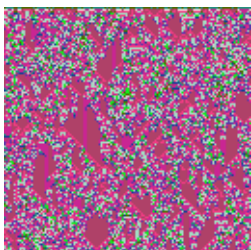
{190 954 694 532 760 121 939 181 851 315 543, 11, 1}

In[4973]:= **HuntCA[1, 11, 300]**



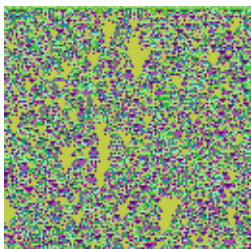
$$\rightarrow \{3 \rightarrow 4.63731 \times 10^{-20}, 4 \rightarrow 1.\}$$

{174 260 158 151 524 704 286 912 229 202 042, 11, 1}



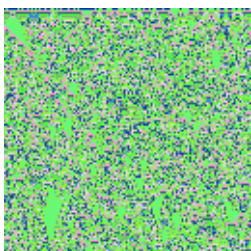
$$\rightarrow \{3 \rightarrow 1.7304 \times 10^{-10}, 4 \rightarrow 1.\}$$

{118 306 732 692 804 648 612 369 989 621 892, 11, 1}



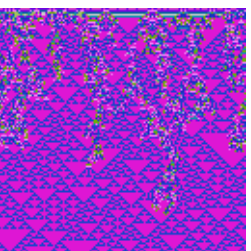
$$\rightarrow \{3 \rightarrow 1.68099 \times 10^{-7}, 4 \rightarrow 1.\}$$

{183 646 793 101 866 286 002 807 854 298 244, 11, 1}



$$\rightarrow \{3 \rightarrow 4.17126 \times 10^{-10}, 4 \rightarrow 1.\}$$

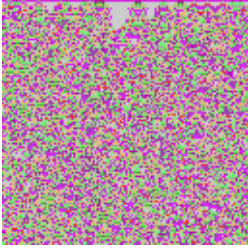
{147 904 601 969 936 239 628 629 263 417 814, 11, 1}



$$\rightarrow \{3 \rightarrow 7.96992 \times 10^{-19}, 4 \rightarrow 1.\}$$

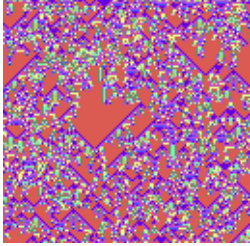
{31 620 162 935 287 966 117 224 633 969 744, 11, 1}





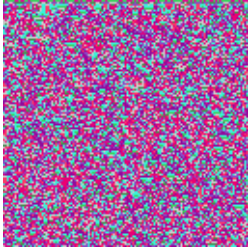
$$\rightarrow \{3 \rightarrow 3.35323 \times 10^{-10}, 4 \rightarrow 1.\}$$

{97 269 614 827 323 156 154 589 237 854 670, 11, 1}



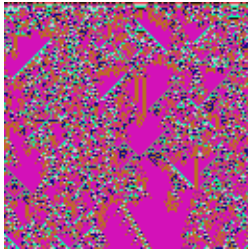
$$\rightarrow \{3 \rightarrow 1.65163 \times 10^{-9}, 4 \rightarrow 1.\}$$

{171 471 360 500 042 925 315 699 684 562 730, 11, 1}



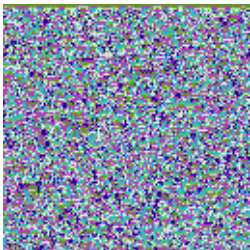
$$\rightarrow \{3 \rightarrow 0.146478, 4 \rightarrow 0.853522\}$$

{287 082 956 448 499 599 337 596 001 753, 11, 1}



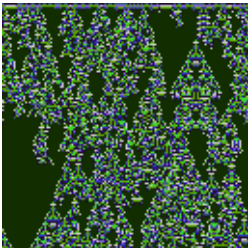
$$\rightarrow \{3 \rightarrow 2.83042 \times 10^{-21}, 4 \rightarrow 1.\}$$

{5 287 709 206 358 736 405 979 466 881 603, 11, 1}



$$\rightarrow \{3 \rightarrow 0.377254, 4 \rightarrow 0.622746\}$$

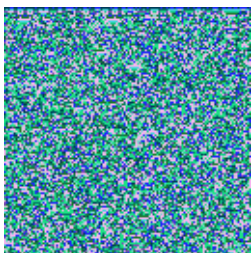
{115 389 389 145 608 029 488 925 596 104 912, 11, 1}



$$\rightarrow \{3 \rightarrow 4.43442 \times 10^{-33}, 4 \rightarrow 1.\}$$

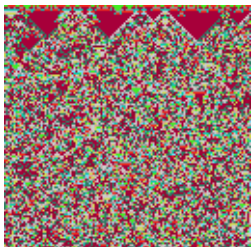
{25 938 849 356 954 802 867 748 531 124 010, 11, 1}





$\rightarrow \{3 \rightarrow 0.014838, 4 \rightarrow 0.985162\}$

{135 346 706 213 149 375 563 747 622 048 111, 11, 1}



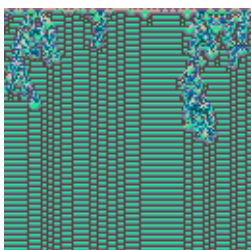
$\rightarrow \{3 \rightarrow 0.0032602, 4 \rightarrow 0.99674\}$

{20 359 980 046 758 683 522 536 600 532 398, 11, 1}



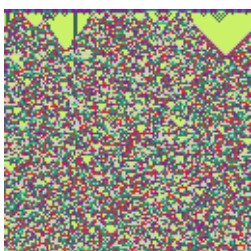
$\rightarrow \{3 \rightarrow 2.8422 \times 10^{-23}, 4 \rightarrow 1.\}$

{184 618 368 163 397 823 837 624 065 881 328, 11, 1}



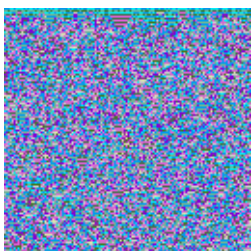
$\rightarrow \{3 \rightarrow 0.0516801, 4 \rightarrow 0.94832\}$

{157 043 307 757 949 028 693 326 062 609 176, 11, 1}



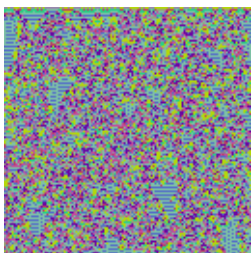
$\rightarrow \{3 \rightarrow 0.173876, 4 \rightarrow 0.826124\}$

{100 923 209 161 667 152 658 418 225 665 609, 11, 1}

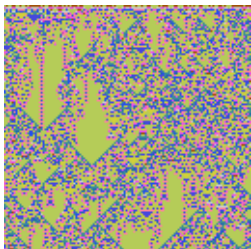


$\rightarrow \{3 \rightarrow 0.126537, 4 \rightarrow 0.873463\}$

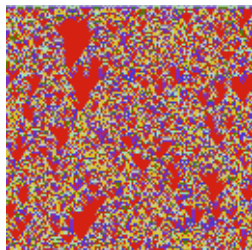
{97 867 248 092 589 468 771 745 301 577 065, 11, 1}


 $\rightarrow \{3 \rightarrow 0.104734, 4 \rightarrow 0.895266\}$ 

{123 111 366 287 512 478 702 091 054 521 431, 11, 1}


 $\rightarrow \{3 \rightarrow 1.35666 \times 10^{-18}, 4 \rightarrow 1.\}$ 

{112 941 306 122 554 158 950 154 498 461 505, 11, 1}


 $\rightarrow \{3 \rightarrow 6.79948 \times 10^{-6}, 4 \rightarrow 0.999993\}$ 

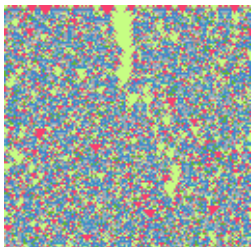
{49 701 550 776 366 715 349 750 122 310 996, 11, 1}

In[4993]:= **HuntCA[1, 11, 100]**



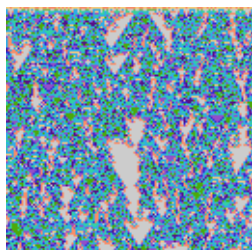
$$\rightarrow \{3 \rightarrow 7.97194 \times 10^{-6}, 4 \rightarrow 0.999992\}$$

{113 980 399 083 980 405 857 433 345 277 058, 11, 1}



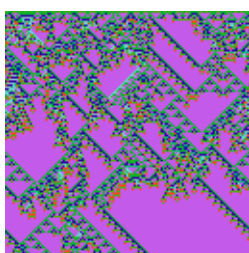
$$\rightarrow \{3 \rightarrow 3.6106 \times 10^{-9}, 4 \rightarrow 1.\}$$

{107 007 656 381 234 609 610 021 331 578 021, 11, 1}



$$\rightarrow \{3 \rightarrow 1.64744 \times 10^{-12}, 4 \rightarrow 1.\}$$

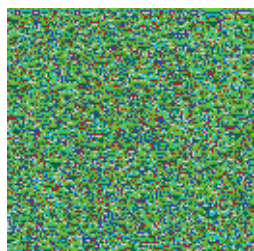
{34 301 040 357 198 299 783 914 479 385 460, 11, 1}



$$\rightarrow \{3 \rightarrow 2.7021 \times 10^{-8}, 4 \rightarrow 1.\}$$

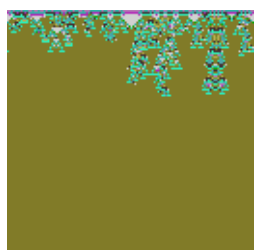
{7 557 999 425 489 548 052 887 543 675 428, 11, 1}

In[5002]:= **HuntCA[1, 12, 400]**



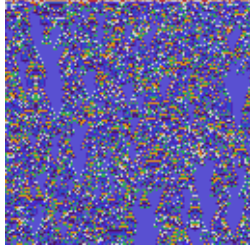
$$\rightarrow \{3 \rightarrow 0.371119, 4 \rightarrow 0.628881\}$$

{3 183 624 509 470 050 738 177 672 871 262 207 839, 12, 1}



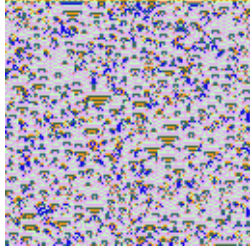
$$\rightarrow \{3 \rightarrow 6.75229 \times 10^{-15}, 4 \rightarrow 1.\}$$

{4 622 376 889 429 451 013 604 146 420 362 117 295, 12, 1}



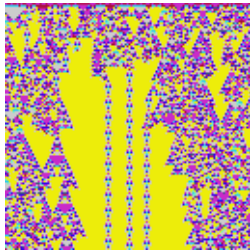
$$\rightarrow \{3 \rightarrow 5.61748 \times 10^{-15}, 4 \rightarrow 1.\}$$

{2 324 582 992 151 909 235 500 896 079 926 781 567, 12, 1}



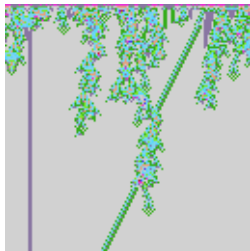
$$\rightarrow \{3 \rightarrow 0.03914, 4 \rightarrow 0.96086\}$$

{3 872 098 174 353 775 005 256 642 768 209 316 215, 12, 1}



$$\rightarrow \{3 \rightarrow 7.78684 \times 10^{-18}, 4 \rightarrow 1.\}$$

{2 037 340 001 818 398 999 341 170 953 886 490 112, 12, 1}



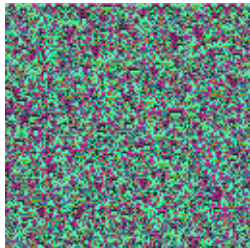
$$\rightarrow \{2 \rightarrow 4.46877 \times 10^{-20}, 4 \rightarrow 1.\}$$

{4 427 749 714 450 918 972 437 772 285 069 988 671, 12, 1}



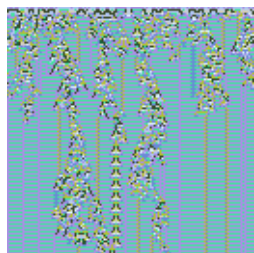
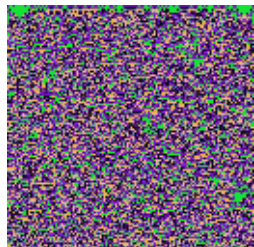
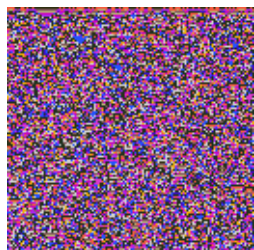
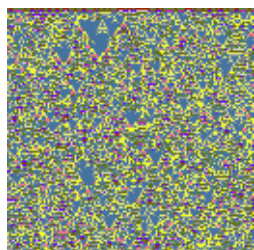
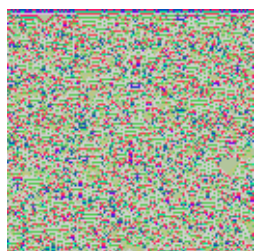
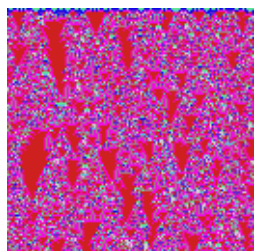
$$\rightarrow \{3 \rightarrow 0.429253, 4 \rightarrow 0.570747\}$$

{1 708 370 790 519 237 346 082 186 276 717 775 455, 12, 1}

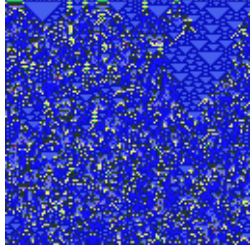


$$\rightarrow \{3 \rightarrow 0.034204, 4 \rightarrow 0.965796\}$$

{2 376 720 417 142 438 386 033 127 726 597 797 749, 12, 1}

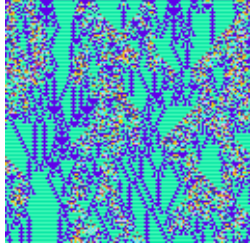

 $\rightarrow \{3 \rightarrow 0.000668163, 4 \rightarrow 0.999332\}$ 
 $\{4\,514\,973\,960\,436\,332\,112\,398\,025\,692\,646\,137\,604, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.387765, 4 \rightarrow 0.612235\}$ 
 $\{2\,041\,199\,719\,679\,753\,779\,617\,366\,283\,455\,459\,450, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000878986, 4 \rightarrow 0.999121\}$ 
 $\{2\,402\,045\,602\,239\,059\,787\,146\,538\,715\,565\,307\,987, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 5.63551 \times 10^{-13}, 4 \rightarrow 1.\}$ 
 $\{2\,057\,138\,996\,796\,647\,111\,271\,363\,681\,334\,316\,915, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00132717, 4 \rightarrow 0.998673\}$ 
 $\{4\,193\,651\,967\,286\,648\,761\,347\,234\,900\,007\,355\,605, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 2.44027 \times 10^{-15}, 4 \rightarrow 1.\}$ 
 $\{4\,832\,061\,841\,122\,092\,870\,041\,218\,161\,867\,902\,899, 12, 1\}$





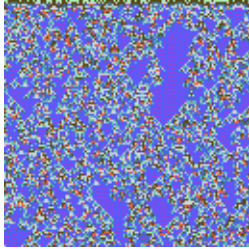
$$\rightarrow \{3 \rightarrow 0.00862596, 4 \rightarrow 0.991374\}$$

{3 149 267 180 998 950 201 768 565 203 234 016 712, 12, 1}



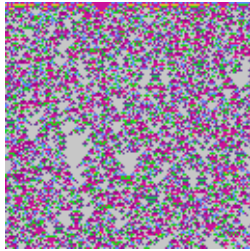
$$\rightarrow \{3 \rightarrow 4.14411 \times 10^{-9}, 4 \rightarrow 1.\}$$

{2 328 992 361 328 859 753 475 183 766 688 141 981, 12, 1}



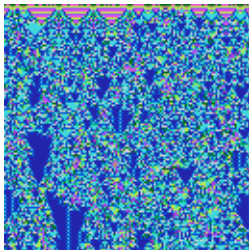
$$\rightarrow \{3 \rightarrow 2.52895 \times 10^{-8}, 4 \rightarrow 1.\}$$

{914 624 583 945 674 935 792 189 235 014 760 980, 12, 1}



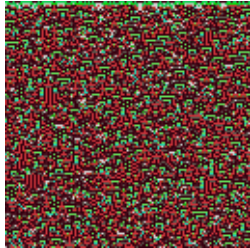
$$\rightarrow \{3 \rightarrow 8.09139 \times 10^{-7}, 4 \rightarrow 0.999999\}$$

{1862 312 014 842 455 382 823 995 032 944 428 012, 12, 1}



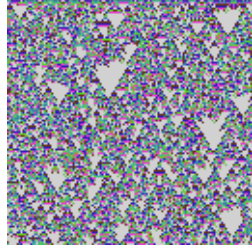
$$\rightarrow \{2 \rightarrow 3.48346 \times 10^{-17}, 4 \rightarrow 1.\}$$

{473 797 174 317 025 139 429 995 010 213 490 922, 12, 1}



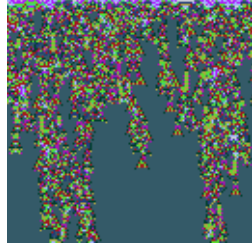
$$\rightarrow \{3 \rightarrow 0.0612323, 4 \rightarrow 0.938768\}$$

{1654 294 025 629 199 293 632 656 385 008 347 091, 12, 1}



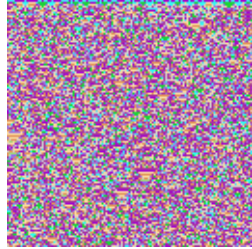
$\rightarrow \{3 \rightarrow 0.0000199096, 4 \rightarrow 0.99998\}$

{1662 709 409 387 306 615 105 670 905 417 028 005, 12, 1}



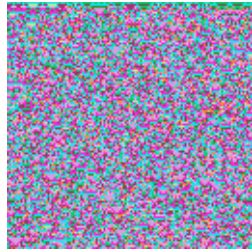
$\rightarrow \{2 \rightarrow 8.89417 \times 10^{-20}, 4 \rightarrow 1.\}$

{2011 403 798 925 234 633 449 787 391 147 582 871, 12, 1}



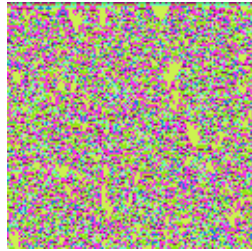
$\rightarrow \{3 \rightarrow 0.20379, 4 \rightarrow 0.79621\}$

{4718 438 767 245 372 612 681 017 421 191 819 077, 12, 1}



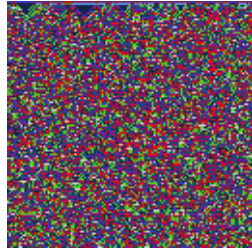
$\rightarrow \{3 \rightarrow 0.118656, 4 \rightarrow 0.881344\}$

{4126 298 921 532 798 091 939 198 537 000 495 292, 12, 1}



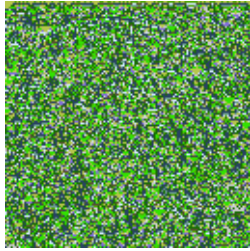
$\rightarrow \{3 \rightarrow 2.65911 \times 10^{-6}, 4 \rightarrow 0.999997\}$

{2614 444 768 819 620 538 550 534 371 894 545 981, 12, 1}



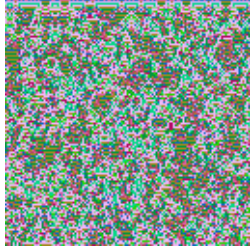
$\rightarrow \{3 \rightarrow 0.00120766, 4 \rightarrow 0.998792\}$

{4690 404 283 728 992 352 970 539 081 707 065 221, 12, 1}



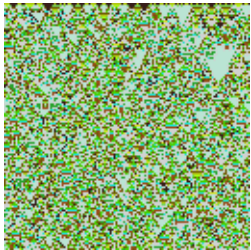
→ {3 → 0.0119256, 4 → 0.988074}

{4 347 222 677 654 469 214 341 341 084 425 736 616, 12, 1}



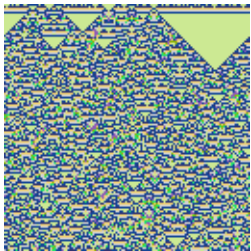
→ {3 → 0.226504, 4 → 0.773496}

{2 184 739 205 550 603 857 643 639 496 301 837 933, 12, 1}



→ {3 → 0.00281073, 4 → 0.997189}

{229 875 758 778 177 924 737 400 909 749 282 333, 12, 1}



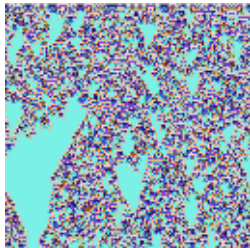
→ {3 → 0.00936813, 4 → 0.990632}

{616 674 602 059 647 015 261 794 979 637 152 673, 12, 1}



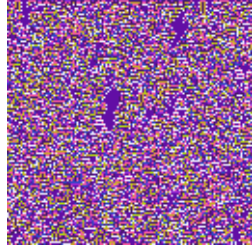
→ {3 → 0.101603, 4 → 0.898397}

{3 788 332 973 218 409 551 904 407 282 262 739 571, 12, 1}



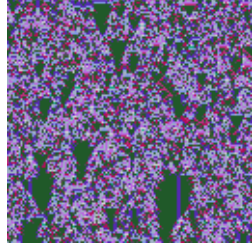
→ {3 → 0.0000120537, 4 → 0.999988}

{1 397 865 929 094 447 824 792 562 982 928 824 708, 12, 1}



$\rightarrow \{3 \rightarrow 0.0000124199, 4 \rightarrow 0.999988\}$

{3913 936 622 626 119 667 765 991 075 957 243 400, 12, 1}



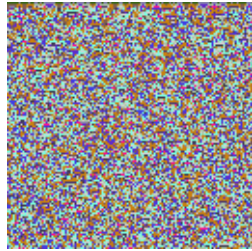
$\rightarrow \{3 \rightarrow 4.44615 \times 10^{-25}, 4 \rightarrow 1.\}$

{2015 613 237 308 183 631 235 616 049 448 229 155, 12, 1}



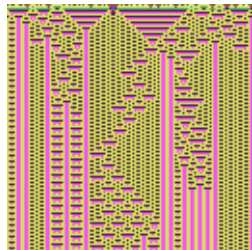
$\rightarrow \{3 \rightarrow 3.32537 \times 10^{-8}, 4 \rightarrow 1.\}$

{4332 806 284 390 475 878 483 848 076 627 385 129, 12, 1}



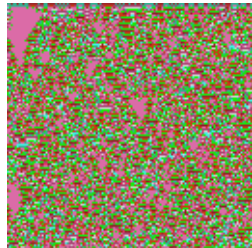
$\rightarrow \{3 \rightarrow 0.42556, 4 \rightarrow 0.57444\}$

{4363 773 565 846 311 009 204 171 183 812 787 176, 12, 1}



$\rightarrow \{3 \rightarrow 8.51045 \times 10^{-11}, 4 \rightarrow 1.\}$

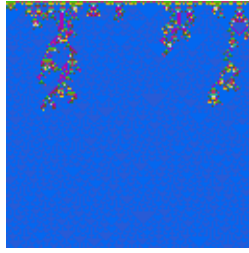
{3607 650 972 982 675 554 036 459 362 192 429 000, 12, 1}



$\rightarrow \{3 \rightarrow 0.000272814, 4 \rightarrow 0.999727\}$

{1085 347 934 558 196 814 912 895 196 405 251 036, 12, 1}

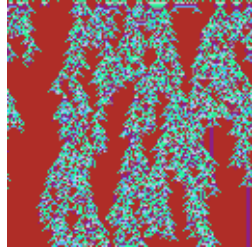




$$\rightarrow \{3 \rightarrow 9.43855 \times 10^{-11}, 4 \rightarrow 1.\}$$

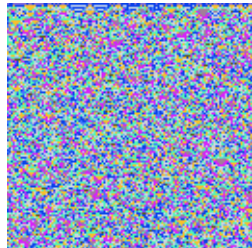
{450 976 774 568 146 814 720 478 827 164 805 219, 12, 1}

In[5041]:= **HuntCA[1, 12, 400]**



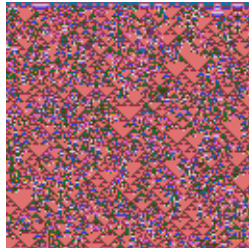
$$\rightarrow \{3 \rightarrow 3.27473 \times 10^{-18}, 4 \rightarrow 1.\}$$

{2 919 156 978 876 928 856 904 590 022 411 850 355, 12, 1}



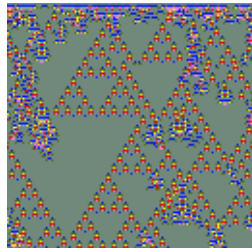
$$\rightarrow \{3 \rightarrow 0.095283, 4 \rightarrow 0.904717\}$$

{1 451 010 129 510 832 011 519 539 371 034 338 515, 12, 1}



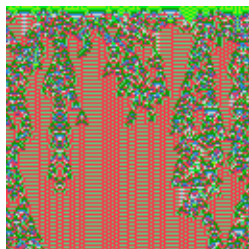
$$\rightarrow \{3 \rightarrow 2.69526 \times 10^{-12}, 4 \rightarrow 1.\}$$

{419 884 703 632 996 741 335 089 119 465 038 134, 12, 1}



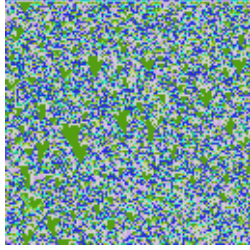
$$\rightarrow \{2 \rightarrow 9.36502 \times 10^{-12}, 4 \rightarrow 1.\}$$

{1 993 525 211 138 824 764 322 115 347 352 665 908, 12, 1}



$$\rightarrow \{3 \rightarrow 1.00934 \times 10^{-17}, 4 \rightarrow 1.\}$$

{188 007 337 183 950 204 337 992 791 334 176 077, 12, 1}



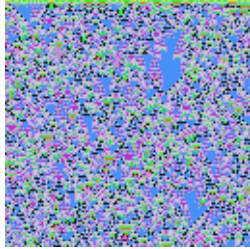
$\rightarrow \{3 \rightarrow 0.0311809, 4 \rightarrow 0.968819\}$

{4 780 248 905 876 274 876 778 131 348 076 797 260, 12, 1}



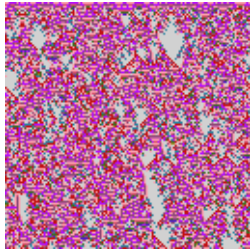
$\rightarrow \{3 \rightarrow 2.70078 \times 10^{-25}, 4 \rightarrow 1.\}$

{2 389 525 100 834 008 359 571 919 696 521 179 321, 12, 1}



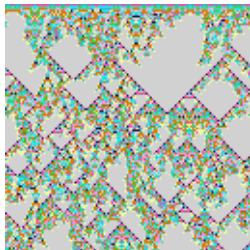
$\rightarrow \{3 \rightarrow 6.7911 \times 10^{-11}, 4 \rightarrow 1.\}$

{1 940 198 335 109 187 827 573 259 531 495 643 233, 12, 1}



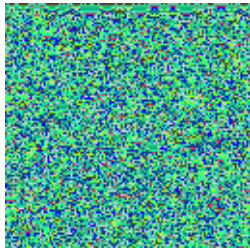
$\rightarrow \{3 \rightarrow 0.0957857, 4 \rightarrow 0.904214\}$

{1 372 584 804 986 012 144 938 530 924 871 645 795, 12, 1}



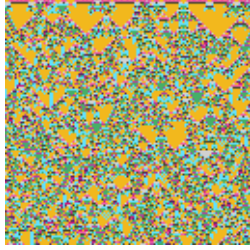
$\rightarrow \{3 \rightarrow 1.36286 \times 10^{-20}, 4 \rightarrow 1.\}$

{4 250 456 265 623 819 835 987 828 289 623 590 188, 12, 1}



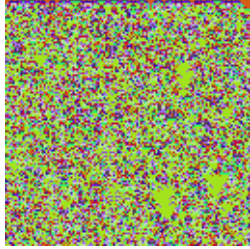
$\rightarrow \{3 \rightarrow 0.000378649, 4 \rightarrow 0.999621\}$

{3 801 278 923 617 100 334 144 409 958 762 329 975, 12, 1}



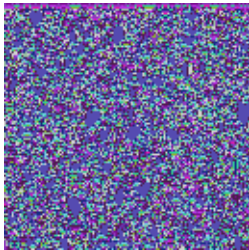
$$\rightarrow \{3 \rightarrow 9.26877 \times 10^{-11}, 4 \rightarrow 1.\}$$

{4495 993 170 723 263 276 478 808 793 804 129 364, 12, 1}



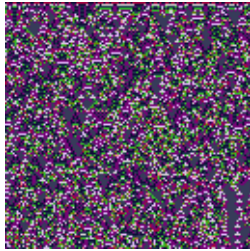
$$\rightarrow \{3 \rightarrow 4.94616 \times 10^{-14}, 4 \rightarrow 1.\}$$

{2884 860 435 152 321 193 443 786 904 275 336 220, 12, 1}



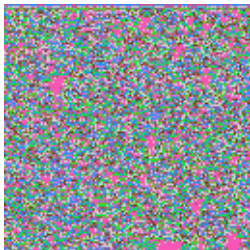
$$\rightarrow \{3 \rightarrow 0.00010294, 4 \rightarrow 0.999897\}$$

{309 766 645 511 312 816 238 786 269 542 782 765, 12, 1}



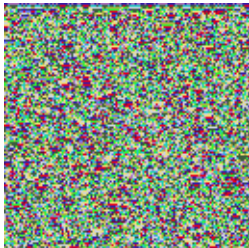
$$\rightarrow \{3 \rightarrow 2.37484 \times 10^{-9}, 4 \rightarrow 1.\}$$

{4690 775 421 240 944 801 412 082 592 706 303 625, 12, 1}



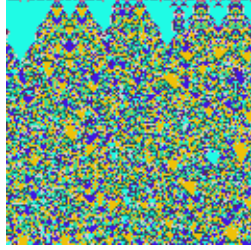
$$\rightarrow \{3 \rightarrow 0.010579, 4 \rightarrow 0.989421\}$$

{25848 988 622 182 464 886 410 161 539 590 323, 12, 1}



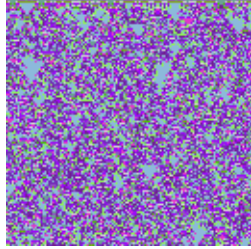
$$\rightarrow \{3 \rightarrow 0.475526, 4 \rightarrow 0.524474\}$$

{313 126 488 827 086 299 210 700 515 770 745 959, 12, 1}



$$\rightarrow \{3 \rightarrow 6.14392 \times 10^{-9}, 4 \rightarrow 1.\}$$

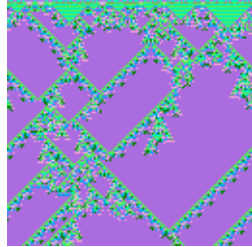
{500 746 645 580 422 187 761 474 731 232 697 940, 12, 1}



$$\rightarrow \{3 \rightarrow 0.122954, 4 \rightarrow 0.877046\}$$

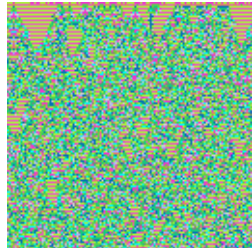
{384 304 127 482 428 355 878 733 797 784 358 190, 12, 1}

In[5081]:= **HuntCA[1, 12, 500]**



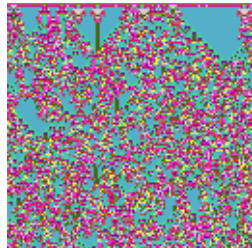
$$\rightarrow \{2 \rightarrow 1.51231 \times 10^{-6}, 4 \rightarrow 0.999999\}$$

{3 058 456 031 175 036 821 699 223 597 960 679 808, 12, 1}



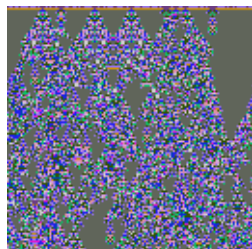
$$\rightarrow \{3 \rightarrow 0.00427143, 4 \rightarrow 0.995729\}$$

{2 544 082 769 530 840 737 297 538 949 339 793 104, 12, 1}



$$\rightarrow \{2 \rightarrow 1.77992 \times 10^{-21}, 4 \rightarrow 1.\}$$

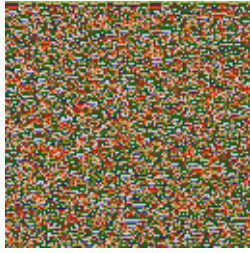
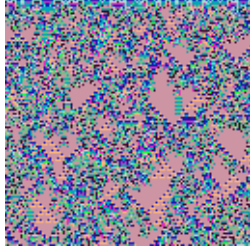
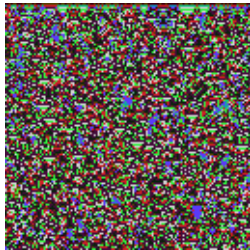
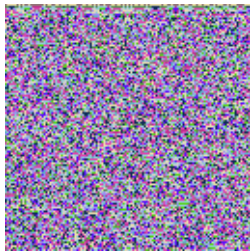
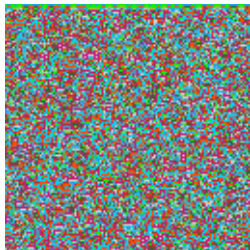
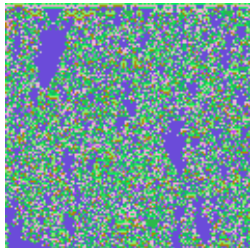
{3 156 961 304 021 170 305 285 480 534 894 566 834, 12, 1}

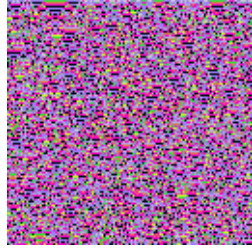


$$\rightarrow \{3 \rightarrow 1.36928 \times 10^{-9}, 4 \rightarrow 1.\}$$

{2 935 089 338 635 216 622 616 118 032 207 661 464, 12, 1}

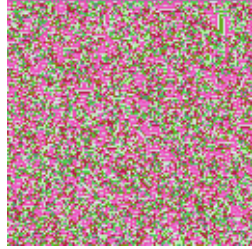



 $\rightarrow \{3 \rightarrow 0.450218, 4 \rightarrow 0.549782\}$ 
 $\{3\ 348\ 113\ 175\ 520\ 685\ 194\ 038\ 874\ 446\ 114\ 032\ 743, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 1.54175 \times 10^{-11}, 4 \rightarrow 1.\}$ 
 $\{4\ 442\ 234\ 357\ 779\ 966\ 606\ 396\ 518\ 293\ 384\ 600\ 530, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.237937, 4 \rightarrow 0.762062\}$ 
 $\{1\ 153\ 296\ 087\ 825\ 836\ 821\ 256\ 835\ 925\ 452\ 937\ 832, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.477825, 4 \rightarrow 0.522175\}$ 
 $\{1\ 793\ 944\ 081\ 574\ 649\ 825\ 705\ 941\ 137\ 514\ 431\ 402, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.257723, 4 \rightarrow 0.742277\}$ 
 $\{4\ 410\ 481\ 952\ 422\ 555\ 798\ 118\ 730\ 963\ 973\ 614\ 580, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 6.80866 \times 10^{-8}, 4 \rightarrow 1.\}$ 
 $\{4\ 570\ 456\ 193\ 813\ 836\ 370\ 788\ 241\ 148\ 821\ 231\ 946, 12, 1\}$



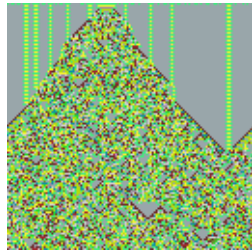
$\rightarrow \{3 \rightarrow 0.264769, 4 \rightarrow 0.735231\}$

{4 296 353 614 575 250 983 831 765 453 312 120 731, 12, 1}



$\rightarrow \{3 \rightarrow 0.0519329, 4 \rightarrow 0.948067\}$

{2 576 325 888 854 622 473 642 307 440 746 191 482, 12, 1}



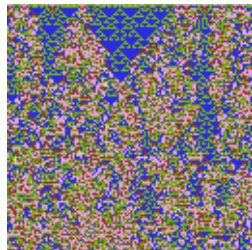
$\rightarrow \{3 \rightarrow 0.000786508, 4 \rightarrow 0.999214\}$

{4 265 887 437 009 802 613 614 990 880 043 799 654, 12, 1}



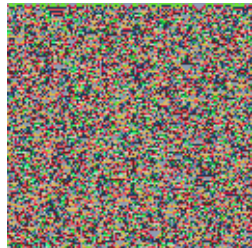
$\rightarrow \{2 \rightarrow 5.9438 \times 10^{-15}, 4 \rightarrow 1.\}$

{781 060 869 332 907 514 784 314 443 714 501 203, 12, 1}



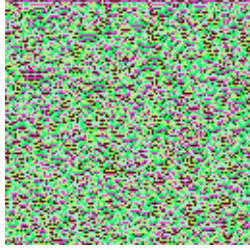
$\rightarrow \{3 \rightarrow 3.67031 \times 10^{-12}, 4 \rightarrow 1.\}$

{1 841 074 151 873 944 400 414 594 980 854 347 790, 12, 1}



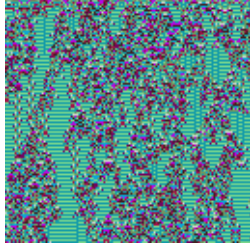
$\rightarrow \{3 \rightarrow 0.0436599, 4 \rightarrow 0.95634\}$

{2 991 856 738 055 452 535 487 498 489 953 972 052, 12, 1}



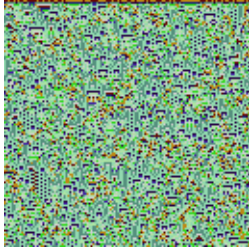
$$\rightarrow \{3 \rightarrow 0.00120763, 4 \rightarrow 0.998792\}$$

{3 335 818 153 272 301 741 408 133 638 804 864 679, 12, 1}



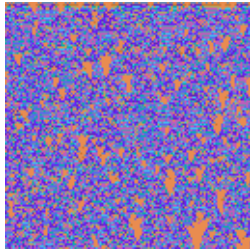
$$\rightarrow \{3 \rightarrow 0.0000642342, 4 \rightarrow 0.999936\}$$

{1 765 834 335 715 660 008 226 255 469 371 593 474, 12, 1}



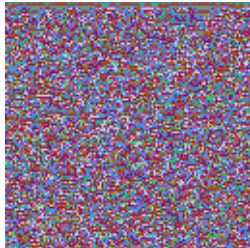
$$\rightarrow \{3 \rightarrow 8.18896 \times 10^{-6}, 4 \rightarrow 0.999992\}$$

{999 666 424 944 877 355 545 203 672 143 315 708, 12, 1}



$$\rightarrow \{3 \rightarrow 0.0205957, 4 \rightarrow 0.979404\}$$

{3 327 078 004 863 799 470 279 172 157 179 372 220, 12, 1}



$$\rightarrow \{3 \rightarrow 0.325776, 4 \rightarrow 0.674224\}$$

{1 387 918 655 525 286 997 192 904 885 216 351 871, 12, 1}



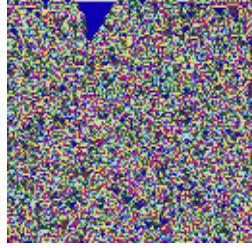
$$\rightarrow \{3 \rightarrow 1.35429 \times 10^{-11}, 4 \rightarrow 1.\}$$

{4 909 351 779 590 744 690 982 921 063 000 123 367, 12, 1}



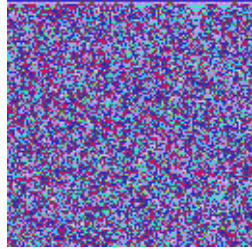
$$\rightarrow \{3 \rightarrow 1.22984 \times 10^{-14}, 4 \rightarrow 1.\}$$

{1283 784 228 005 495 850 522 450 931 863 975 000, 12, 1}



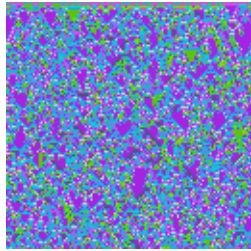
$$\rightarrow \{3 \rightarrow 0.0195956, 4 \rightarrow 0.980404\}$$

{1451 158 298 157 951 309 195 594 751 482 185 744, 12, 1}



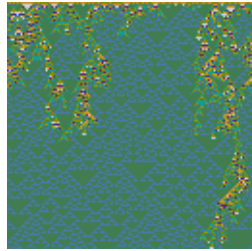
$$\rightarrow \{3 \rightarrow 0.0185697, 4 \rightarrow 0.98143\}$$

{3508 602 389 453 806 193 097 432 880 790 532 327, 12, 1}



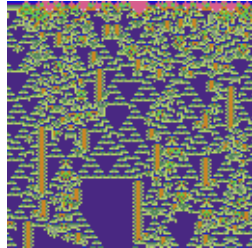
$$\rightarrow \{3 \rightarrow 0.100313, 4 \rightarrow 0.899687\}$$

{407 083 679 679 763 290 066 323 614 903 817 631, 12, 1}



$$\rightarrow \{3 \rightarrow 9.40337 \times 10^{-14}, 4 \rightarrow 1.\}$$

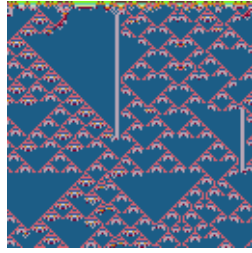
{3322 254 899 670 042 575 548 039 210 638 634 274, 12, 1}



$$\rightarrow \{3 \rightarrow 3.12133 \times 10^{-8}, 4 \rightarrow 1.\}$$

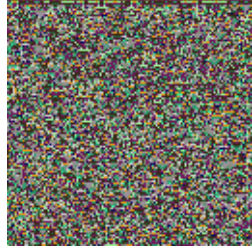
{3366 348 609 775 991 561 944 563 473 905 904 519, 12, 1}





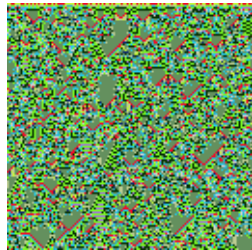
$$\rightarrow \{3 \rightarrow 1.25523 \times 10^{-9}, 4 \rightarrow 1.\}$$

{4462409648259657012007026312073771583, 12, 1}



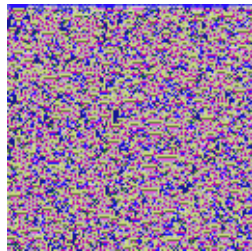
$$\rightarrow \{3 \rightarrow 0.0329766, 4 \rightarrow 0.967023\}$$

{2111878198528565187254918508220088422, 12, 1}



$$\rightarrow \{2 \rightarrow 1.82687 \times 10^{-6}, 4 \rightarrow 0.999998\}$$

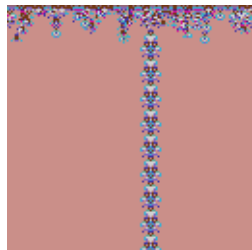
{3467696186454370470893979057484596813, 12, 1}



$$\rightarrow \{3 \rightarrow 0.0303551, 4 \rightarrow 0.969645\}$$

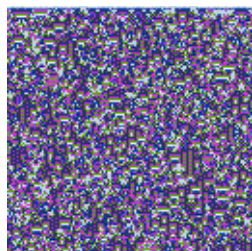
{3219587436282698321611319551243333855, 12, 1}

In[5131]:= **HuntCA[1, 12, 500]**



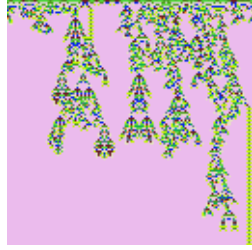
$$\rightarrow \{2 \rightarrow 0.188694, 4 \rightarrow 0.811306\}$$

{2326928445937698323414236422914492934, 12, 1}



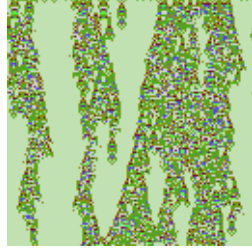
$$\rightarrow \{3 \rightarrow 0.0198381, 4 \rightarrow 0.980162\}$$

{2003654169620021544996262576243141370, 12, 1}



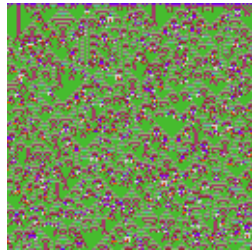
$$\rightarrow \{3 \rightarrow 5.36938 \times 10^{-25}, 4 \rightarrow 1.\}$$

{1 047 385 438 223 922 898 756 810 823 918 015 952, 12, 1}



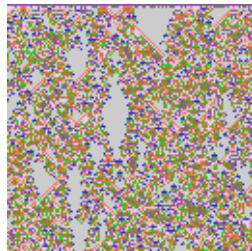
$$\rightarrow \{3 \rightarrow 4.017 \times 10^{-19}, 4 \rightarrow 1.\}$$

{4 320 619 266 476 257 399 584 626 296 920 802 992, 12, 1}



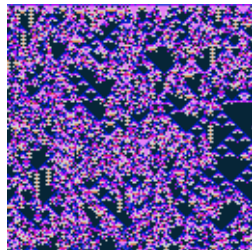
$$\rightarrow \{3 \rightarrow 2.98886 \times 10^{-9}, 4 \rightarrow 1.\}$$

{2 444 760 171 128 078 547 292 541 875 632 454 725, 12, 1}



$$\rightarrow \{3 \rightarrow 9.97269 \times 10^{-16}, 4 \rightarrow 1.\}$$

{2 126 931 450 120 992 154 921 899 325 663 276 002, 12, 1}



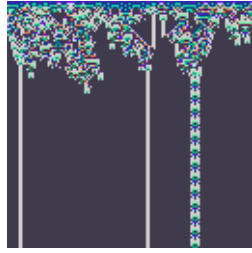
$$\rightarrow \{3 \rightarrow 2.51895 \times 10^{-10}, 4 \rightarrow 1.\}$$

{4 876 919 765 720 849 702 505 705 668 845 268 471, 12, 1}



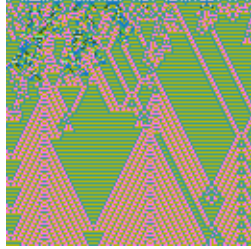
$$\rightarrow \{3 \rightarrow 0.251509, 4 \rightarrow 0.748491\}$$

{4 369 157 142 966 567 860 039 911 643 926 563 132, 12, 1}



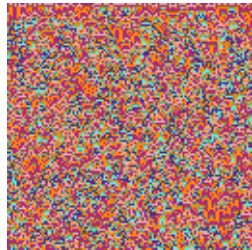
$$\rightarrow \{2 \rightarrow 0.45128, 4 \rightarrow 0.54872\}$$

{2 455 526 575 190 723 201 244 662 123 774 604 682, 12, 1}



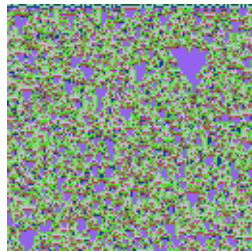
$$\rightarrow \{3 \rightarrow 1.14101 \times 10^{-8}, 4 \rightarrow 1.\}$$

{104 436 083 916 080 938 901 468 633 947 649 723, 12, 1}



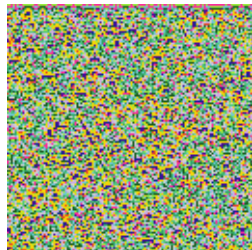
$$\rightarrow \{3 \rightarrow 0.0882832, 4 \rightarrow 0.911717\}$$

{1 164 630 014 654 934 091 247 866 768 317 874 000, 12, 1}



$$\rightarrow \{3 \rightarrow 0.000232863, 4 \rightarrow 0.999767\}$$

{4 167 114 581 846 575 597 183 194 109 806 583 021, 12, 1}



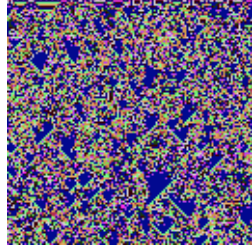
$$\rightarrow \{3 \rightarrow 0.278694, 4 \rightarrow 0.721306\}$$

{1 055 777 046 438 112 370 631 783 907 596 664 177, 12, 1}



$$\rightarrow \{3 \rightarrow 2.11745 \times 10^{-27}, 4 \rightarrow 1.\}$$

{4 733 096 969 284 915 270 003 782 773 388 302 024, 12, 1}



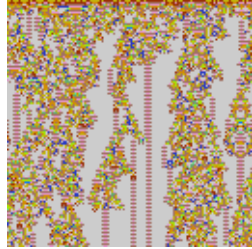
$$\rightarrow \{3 \rightarrow 1.4884 \times 10^{-12}, 4 \rightarrow 1.\}$$

{4 353 700 570 138 177 659 858 139 839 190 439 269, 12, 1}



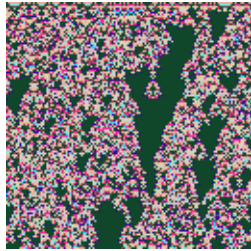
$$\rightarrow \{3 \rightarrow 0.0268294, 4 \rightarrow 0.973171\}$$

{1 700 426 182 256 011 923 546 131 273 546 037 637, 12, 1}



$$\rightarrow \{2 \rightarrow 1.15246 \times 10^{-17}, 4 \rightarrow 1.\}$$

{1 587 812 797 100 613 302 522 421 853 288 753 821, 12, 1}



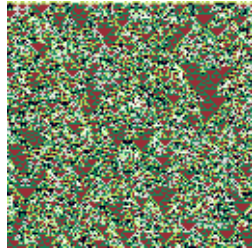
$$\rightarrow \{3 \rightarrow 6.0488 \times 10^{-18}, 4 \rightarrow 1.\}$$

{427 953 633 306 257 907 352 836 909 776 522 352, 12, 1}



$$\rightarrow \{3 \rightarrow 3.0237 \times 10^{-9}, 4 \rightarrow 1.\}$$

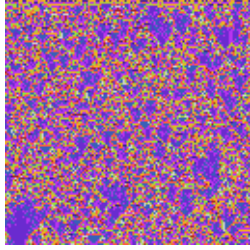
{592 055 900 705 787 538 405 185 680 260 712 257, 12, 1}

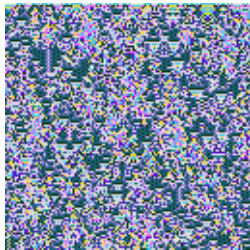
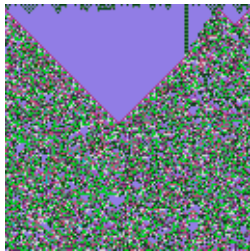
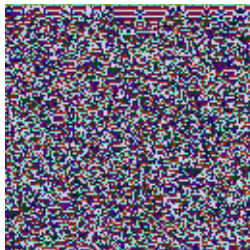
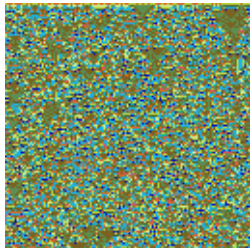


$$\rightarrow \{3 \rightarrow 1.38708 \times 10^{-8}, 4 \rightarrow 1.\}$$

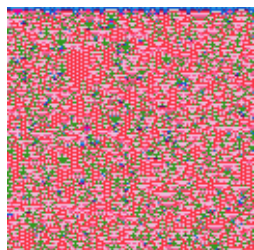
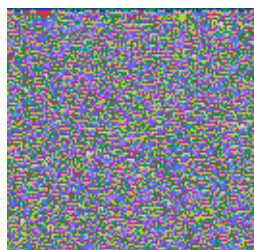
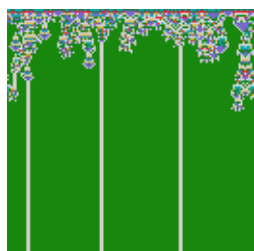
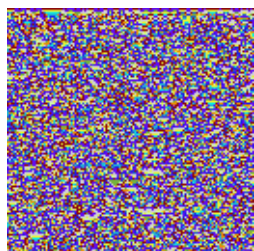
{2 077 595 008 963 493 382 340 946 218 715 999 862, 12, 1}

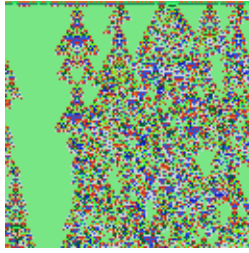



 $\rightarrow \{3 \rightarrow 0.184298, 4 \rightarrow 0.815702\}$ 
 $\{4\ 161\ 306\ 249\ 103\ 113\ 413\ 341\ 278\ 922\ 571\ 533\ 309, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.35362, 4 \rightarrow 0.64638\}$ 
 $\{2\ 689\ 635\ 208\ 258\ 156\ 908\ 780\ 086\ 247\ 160\ 539\ 109, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00807607, 4 \rightarrow 0.991924\}$ 
 $\{3\ 464\ 381\ 909\ 810\ 378\ 924\ 992\ 424\ 199\ 493\ 297\ 851, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000046346, 4 \rightarrow 0.999954\}$ 
 $\{1\ 213\ 887\ 903\ 985\ 817\ 646\ 766\ 797\ 968\ 003\ 998\ 837, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00245503, 4 \rightarrow 0.997545\}$ 
 $\{3\ 554\ 665\ 232\ 635\ 756\ 293\ 438\ 306\ 927\ 060\ 139\ 035, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.12481, 4 \rightarrow 0.87519\}$ 
 $\{4\ 015\ 935\ 123\ 043\ 278\ 540\ 719\ 690\ 821\ 100\ 978\ 295, 12, 1\}$

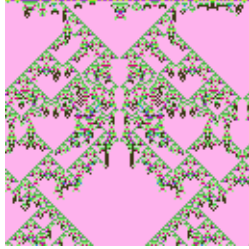

 $\rightarrow \{3 \rightarrow 0.00417756, 4 \rightarrow 0.995822\}$ 
 $\{4\ 840\ 462\ 450\ 388\ 432\ 582\ 712\ 008\ 230\ 057\ 550\ 137, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 3.54426 \times 10^{-10}, 4 \rightarrow 1.\}$ 
 $\{4\ 114\ 845\ 120\ 516\ 964\ 686\ 402\ 365\ 473\ 571\ 715\ 958, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.151232, 4 \rightarrow 0.848768\}$ 
 $\{3\ 238\ 507\ 091\ 438\ 944\ 897\ 358\ 845\ 466\ 585\ 619\ 938, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.130651, 4 \rightarrow 0.869349\}$ 
 $\{3\ 441\ 954\ 552\ 273\ 980\ 123\ 810\ 113\ 394\ 898\ 191\ 523, 12, 1\}$ 

 $\rightarrow \{2 \rightarrow 0.0189815, 4 \rightarrow 0.981018\}$ 
 $\{3\ 389\ 428\ 614\ 522\ 212\ 299\ 493\ 989\ 393\ 123\ 190\ 092, 12, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.219643, 4 \rightarrow 0.780357\}$ 
 $\{3\ 761\ 646\ 209\ 519\ 410\ 135\ 505\ 451\ 657\ 938\ 544\ 291, 12, 1\}$ 
 $\text{In}[5165]:= \text{HuntCA}[1, 13, 500]$



$$\rightarrow \{3 \rightarrow 2.942 \times 10^{-21}, 4 \rightarrow 1.\}$$

{99 242 998 156 468 296 716 042 135 090 393 992 964 077, 13, 1}



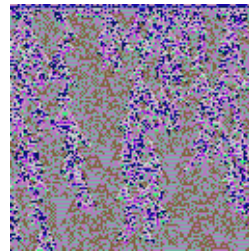
$$\rightarrow \{3 \rightarrow 8.56403 \times 10^{-10}, 4 \rightarrow 1.\}$$

{30 235 228 829 942 738 476 096 753 221 841 410 568 993, 13, 1}



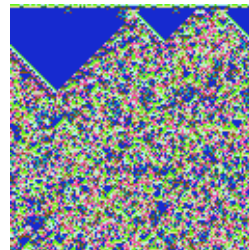
$$\rightarrow \{3 \rightarrow 0.224065, 4 \rightarrow 0.775935\}$$

{56 411 080 349 499 089 187 496 099 531 199 005 357 129, 13, 1}



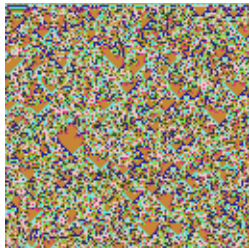
$$\rightarrow \{3 \rightarrow 0.080857, 4 \rightarrow 0.919143\}$$

{156 776 788 825 747 280 160 695 099 480 093 511 078 193, 13, 1}



$$\rightarrow \{3 \rightarrow 5.70756 \times 10^{-8}, 4 \rightarrow 1.\}$$

{131 990 619 157 494 140 827 079 768 507 534 706 209 060, 13, 1}



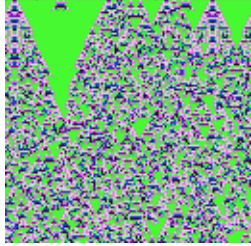
$$\rightarrow \{3 \rightarrow 0.14504, 4 \rightarrow 0.85496\}$$

{10 442 909 199 479 614 545 117 360 727 846 236 703 888, 13, 1}



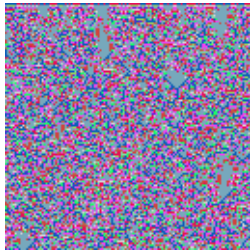
$$\rightarrow \{3 \rightarrow 5.61074 \times 10^{-6}, 4 \rightarrow 0.999994\}$$

{113 142 806 523 670 156 834 010 151 844 288 560 603 737, 13, 1}



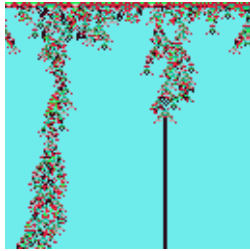
$$\rightarrow \{3 \rightarrow 1.3047 \times 10^{-15}, 4 \rightarrow 1.\}$$

{20 693 269 812 300 239 531 517 575 135 149 033 774 556, 13, 1}



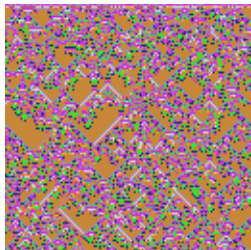
$$\rightarrow \{3 \rightarrow 0.000259943, 4 \rightarrow 0.99974\}$$

{132 527 481 320 043 594 301 007 369 678 132 868 555 883, 13, 1}



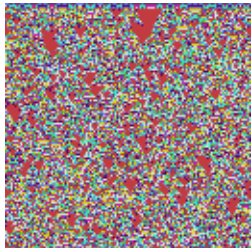
$$\rightarrow \{2 \rightarrow 1.95153 \times 10^{-14}, 4 \rightarrow 1.\}$$

{159 905 700 948 677 175 176 392 165 576 909 906 680 832, 13, 1}



$$\rightarrow \{3 \rightarrow 2.93193 \times 10^{-6}, 4 \rightarrow 0.999997\}$$

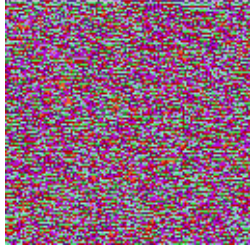
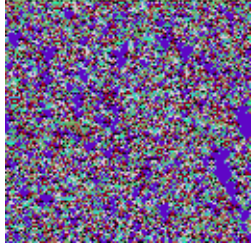
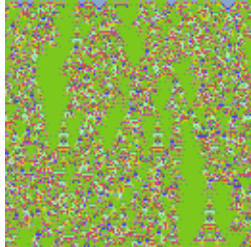
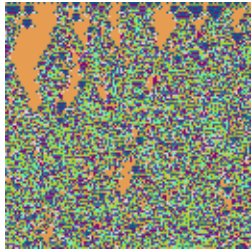
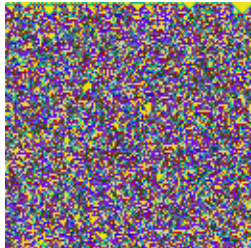
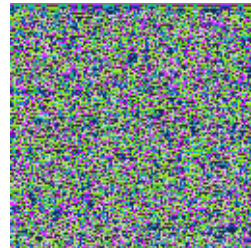
{88 237 536 241 688 058 841 112 384 904 138 636 889 578, 13, 1}

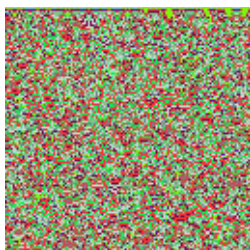
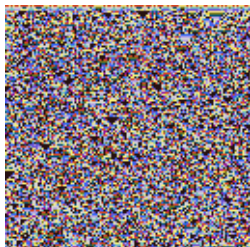
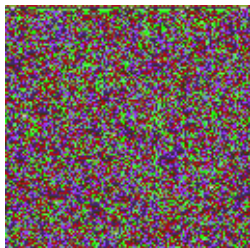


$$\rightarrow \{3 \rightarrow 0.197513, 4 \rightarrow 0.802487\}$$

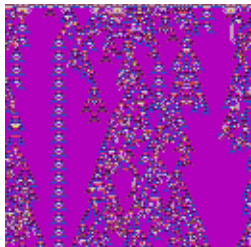
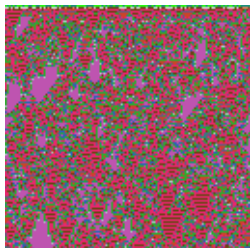
{44 425 815 274 819 774 188 872 818 781 913 203 173 080, 13, 1}



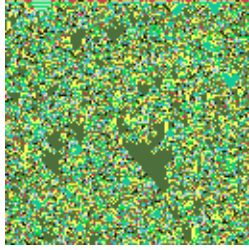
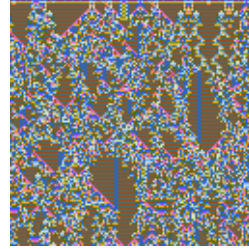
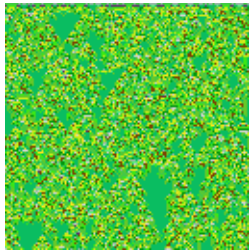
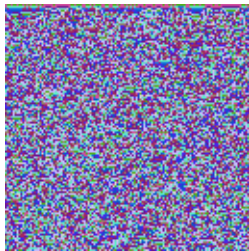
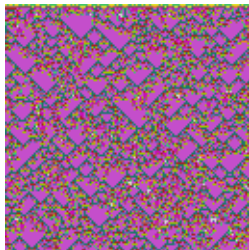
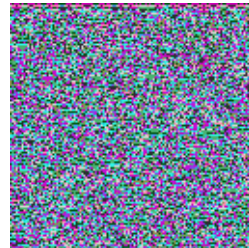

 $\rightarrow \{3 \rightarrow 0.484948, 4 \rightarrow 0.515052\}$ 
 $\{105\,024\,117\,146\,625\,702\,696\,118\,980\,311\,225\,846\,882\,605, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000127279, 4 \rightarrow 0.999873\}$ 
 $\{14\,192\,162\,157\,622\,354\,717\,397\,281\,725\,469\,249\,976\,203, 13, 1\}$ 

 $\rightarrow \{2 \rightarrow 6.65183 \times 10^{-17}, 4 \rightarrow 1.\}$ 
 $\{81\,416\,532\,578\,360\,486\,896\,721\,262\,623\,356\,975\,247\,287, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 5.92643 \times 10^{-18}, 4 \rightarrow 1.\}$ 
 $\{95\,467\,245\,391\,450\,289\,095\,255\,565\,089\,150\,253\,981\,674, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00819008, 4 \rightarrow 0.99181\}$ 
 $\{55\,602\,842\,688\,435\,465\,030\,441\,686\,799\,583\,374\,559\,198, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0251675, 4 \rightarrow 0.974832\}$ 
 $\{104\,838\,843\,865\,685\,936\,475\,795\,257\,131\,379\,615\,586\,108, 13, 1\}$

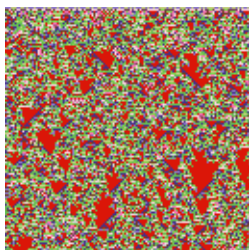

 $\rightarrow \{3 \rightarrow 0.36878, 4 \rightarrow 0.63122\}$ 
 $\{159\,176\,479\,822\,927\,281\,064\,329\,618\,833\,685\,841\,075\,778, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000250255, 4 \rightarrow 0.99975\}$ 
 $\{146\,896\,323\,013\,645\,855\,592\,070\,577\,392\,258\,081\,375\,144, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.392298, 4 \rightarrow 0.607702\}$ 
 $\{3\,771\,967\,805\,257\,509\,678\,607\,721\,315\,358\,749\,257\,059, 13, 1\}$ 

In[5180]:= **HuntCA[1, 13, 500]**


 $\rightarrow \{2 \rightarrow 1.51595 \times 10^{-19}, 4 \rightarrow 1.\}$ 
 $\{99\,384\,908\,964\,066\,022\,244\,825\,088\,901\,912\,417\,579\,256, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 3.84878 \times 10^{-7}, 4 \rightarrow 1.\}$ 
 $\{120\,523\,381\,076\,351\,738\,203\,864\,639\,979\,479\,386\,351\,385, 13, 1\}$ 

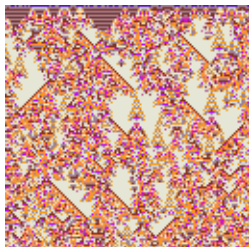
 $\rightarrow \{3 \rightarrow 0.350958, 4 \rightarrow 0.649042\}$ 
 $\{15\,542\,898\,865\,221\,308\,263\,331\,463\,381\,679\,427\,969\,465, 13, 1\}$


 $\rightarrow \{3 \rightarrow 0.412233, 4 \rightarrow 0.587767\}$ 
 $\{14\,676\,877\,248\,216\,242\,003\,718\,737\,427\,739\,223\,755\,293, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000613412, 4 \rightarrow 0.999387\}$ 
 $\{126\,107\,177\,781\,477\,530\,280\,109\,848\,964\,882\,760\,091\,504, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 1.62965 \times 10^{-13}, 4 \rightarrow 1.\}$ 
 $\{35\,129\,145\,361\,468\,029\,768\,652\,493\,929\,467\,024\,305\,361, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.293862, 4 \rightarrow 0.706138\}$ 
 $\{20\,435\,876\,698\,374\,736\,898\,100\,359\,229\,596\,893\,368\,105, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0136931, 4 \rightarrow 0.986307\}$ 
 $\{12\,245\,691\,129\,306\,294\,572\,779\,415\,596\,128\,513\,572\,284, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00214694, 4 \rightarrow 0.997853\}$ 
 $\{140\,520\,393\,496\,654\,072\,459\,651\,300\,967\,172\,692\,789\,806, 13, 1\}$



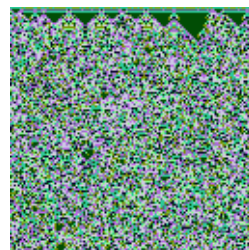
$$\rightarrow \{3 \rightarrow 2.58999 \times 10^{-11}, 4 \rightarrow 1.\}$$

{55 869 496 271 211 651 860 790 052 487 514 715 012 713, 13, 1}



$$\rightarrow \{3 \rightarrow 1.20509 \times 10^{-18}, 4 \rightarrow 1.\}$$

{22 620 745 513 230 368 981 993 118 340 545 025 428 693, 13, 1}



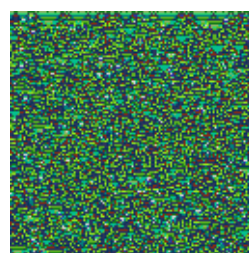
$$\rightarrow \{3 \rightarrow 0.0276347, 4 \rightarrow 0.972365\}$$

{132 950 322 177 949 492 444 561 161 271 820 807 282 797, 13, 1}



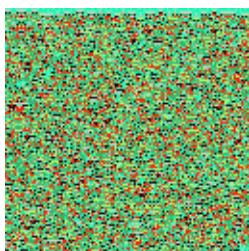
$$\rightarrow \{3 \rightarrow 0.0188936, 4 \rightarrow 0.981106\}$$

{138 621 207 543 486 212 103 433 942 646 180 389 483 993, 13, 1}



$$\rightarrow \{3 \rightarrow 0.0365205, 4 \rightarrow 0.96348\}$$

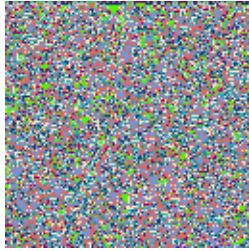
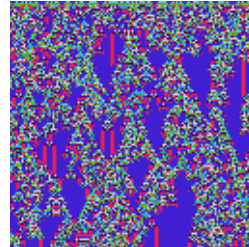
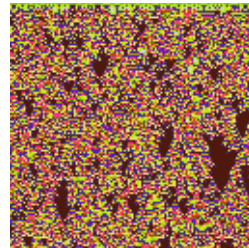
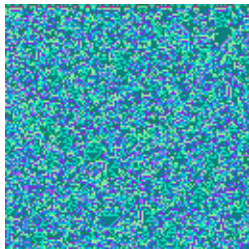
{148 739 394 524 401 772 297 837 513 495 473 707 278 301, 13, 1}

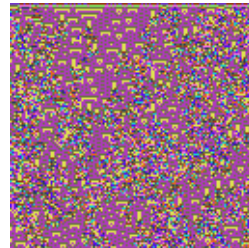


$$\rightarrow \{3 \rightarrow 0.0361339, 4 \rightarrow 0.963866\}$$

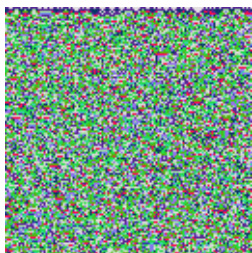
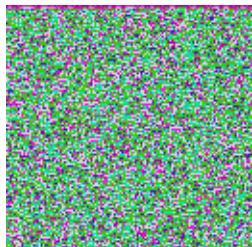
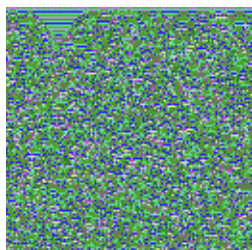
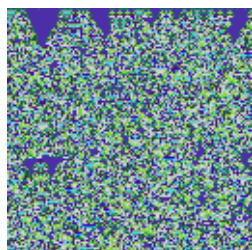
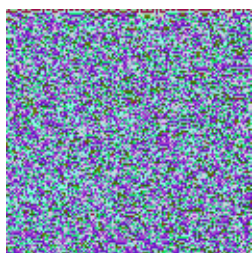
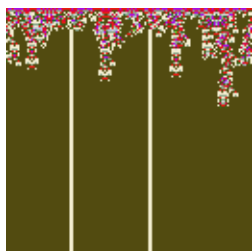
{99 091 186 241 987 424 846 976 900 064 639 508 790 637, 13, 1}

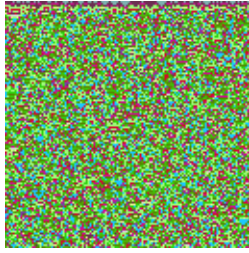
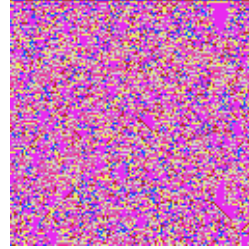
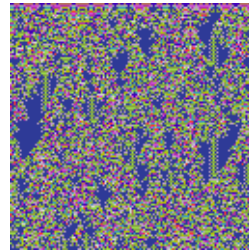
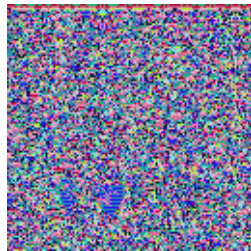
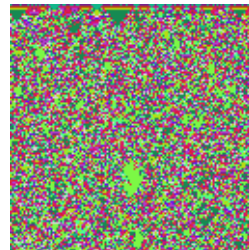
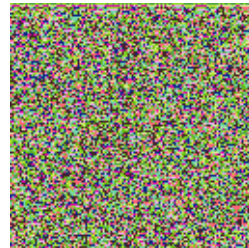


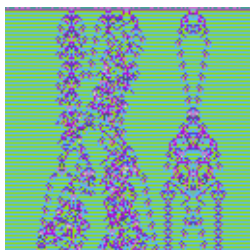

 $\rightarrow \{3 \rightarrow 0.0865597, 4 \rightarrow 0.91344\}$ 
 $\{59\,250\,925\,119\,299\,794\,302\,067\,519\,642\,493\,148\,702\,685, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 9.94893 \times 10^{-24}, 4 \rightarrow 1.\}$ 
 $\{127\,079\,474\,184\,538\,084\,128\,206\,639\,667\,216\,971\,647\,066, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 1.83966 \times 10^{-12}, 4 \rightarrow 1.\}$ 
 $\{130\,904\,038\,639\,935\,622\,803\,857\,425\,687\,040\,067\,079\,359, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00405638, 4 \rightarrow 0.995944\}$ 
 $\{30\,141\,332\,149\,041\,190\,573\,471\,046\,348\,019\,078\,938\,840, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00673999, 4 \rightarrow 0.99326\}$ 
 $\{68\,310\,024\,173\,713\,265\,794\,177\,442\,712\,722\,630\,108\,258, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0120049, 4 \rightarrow 0.987995\}$ 
 $\{124\,577\,297\,543\,627\,901\,778\,202\,779\,235\,476\,784\,105\,093, 13, 1\}$ 

In[5197]:= **HuntCA[1, 13, 500]**

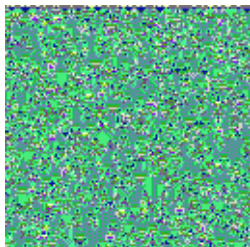

 $\rightarrow \{3 \rightarrow 0.0862379, 4 \rightarrow 0.913762\}$ 
 $\{1494\ 377\ 036\ 033\ 379\ 107\ 472\ 849\ 347\ 642\ 747\ 275\ 379, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00111611, 4 \rightarrow 0.998884\}$ 
 $\{65\ 837\ 806\ 205\ 454\ 629\ 179\ 942\ 427\ 480\ 966\ 941\ 564\ 820, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00788073, 4 \rightarrow 0.992119\}$ 
 $\{76\ 269\ 875\ 379\ 916\ 584\ 127\ 876\ 777\ 578\ 023\ 972\ 289\ 570, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.312896, 4 \rightarrow 0.687104\}$ 
 $\{123\ 370\ 167\ 785\ 769\ 581\ 371\ 161\ 255\ 637\ 633\ 622\ 660\ 226, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.481925, 4 \rightarrow 0.518075\}$ 
 $\{79\ 697\ 825\ 238\ 750\ 275\ 330\ 149\ 554\ 732\ 125\ 163\ 972\ 147, 13, 1\}$ 

 $\rightarrow \{2 \rightarrow 2.99884 \times 10^{-8}, 4 \rightarrow 1.\}$ 
 $\{63\ 902\ 381\ 120\ 094\ 774\ 438\ 253\ 053\ 301\ 236\ 684\ 519\ 109, 13, 1\}$


 $\rightarrow \{3 \rightarrow 0.00139467, 4 \rightarrow 0.998605\}$ 
 $\{73\,152\,870\,403\,413\,372\,182\,881\,278\,638\,819\,894\,696\,121, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 6.9325 \times 10^{-11}, 4 \rightarrow 1.\}$ 
 $\{156\,803\,700\,660\,595\,289\,230\,714\,051\,532\,186\,873\,041\,693, 13, 1\}$ 

 $\rightarrow \{2 \rightarrow 5.10411 \times 10^{-6}, 4 \rightarrow 0.999995\}$ 
 $\{124\,161\,214\,367\,469\,358\,546\,565\,229\,582\,699\,530\,333\,389, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0383851, 4 \rightarrow 0.961615\}$ 
 $\{7\,170\,738\,803\,551\,368\,810\,948\,090\,787\,482\,990\,799\,325, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0000125195, 4 \rightarrow 0.999987\}$ 
 $\{138\,053\,092\,651\,608\,240\,707\,215\,520\,674\,274\,613\,296\,313, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0324986, 4 \rightarrow 0.967501\}$ 
 $\{136\,146\,577\,687\,066\,354\,990\,812\,628\,104\,687\,690\,474\,976, 13, 1\}$



$$\rightarrow \{3 \rightarrow 6.82289 \times 10^{-8}, 4 \rightarrow 1.\}$$

{100 768 508 438 747 295 440 176 254 647 622 379 165 505, 13, 1}



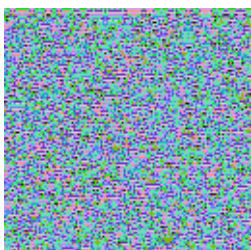
$$\rightarrow \{3 \rightarrow 0.433122, 4 \rightarrow 0.566878\}$$

{131 315 208 774 042 318 551 821 535 723 810 806 198 619, 13, 1}



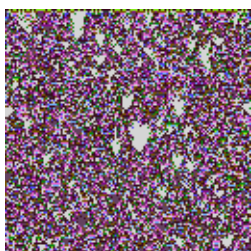
$$\rightarrow \{3 \rightarrow 0.350089, 4 \rightarrow 0.649911\}$$

{61 242 784 629 427 913 559 256 963 644 642 108 807 544, 13, 1}



$$\rightarrow \{3 \rightarrow 0.166484, 4 \rightarrow 0.833516\}$$

{5 243 261 779 110 915 932 426 007 973 397 653 639 566, 13, 1}



$$\rightarrow \{3 \rightarrow 0.081443, 4 \rightarrow 0.918557\}$$

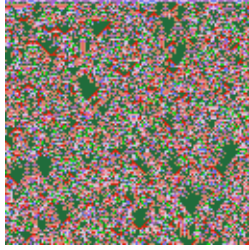
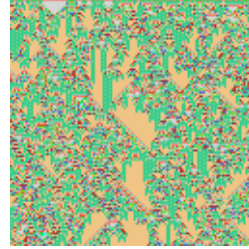
{74 911 703 065 612 456 022 433 749 034 517 002 222 976, 13, 1}

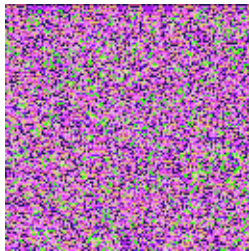
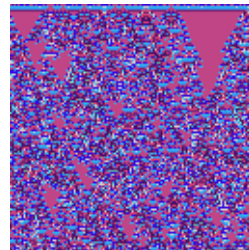
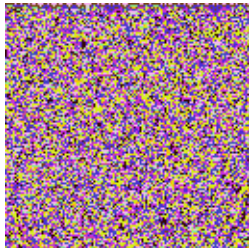


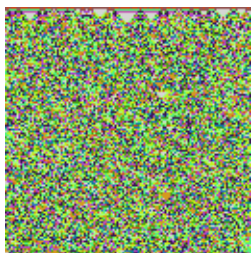
$$\rightarrow \{3 \rightarrow 2.68714 \times 10^{-18}, 4 \rightarrow 1.\}$$

{45 795 463 558 235 049 642 822 584 227 332 911 502 535, 13, 1}



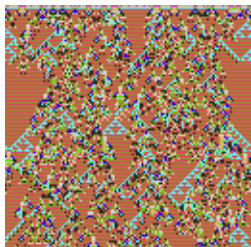

 $\rightarrow \{3 \rightarrow 0.418493, 4 \rightarrow 0.581507\}$ 
 $\{18\,834\,519\,499\,499\,086\,329\,200\,873\,566\,629\,859\,372\,780, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 9.07964 \times 10^{-14}, 4 \rightarrow 1.\}$ 
 $\{132\,943\,066\,283\,337\,635\,043\,461\,321\,329\,133\,272\,475\,900, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.41756, 4 \rightarrow 0.58244\}$ 
 $\{24\,857\,696\,343\,100\,380\,867\,233\,283\,035\,207\,612\,330\,049, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.26892, 4 \rightarrow 0.73108\}$ 
 $\{66\,251\,061\,925\,182\,062\,520\,613\,918\,276\,471\,021\,756\,580, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 9.69712 \times 10^{-9}, 4 \rightarrow 1.\}$ 
 $\{136\,805\,966\,722\,078\,564\,709\,231\,332\,963\,295\,526\,174\,519, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.000325751, 4 \rightarrow 0.999674\}$ 
 $\{92\,457\,419\,612\,159\,810\,437\,341\,163\,549\,641\,940\,926\,583, 13, 1\}$



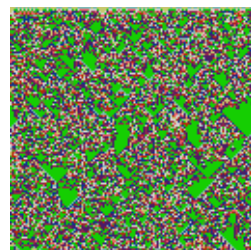
$$\rightarrow \{3 \rightarrow 0.0686574, 4 \rightarrow 0.931343\}$$

{47 125 220 715 378 241 898 017 050 574 575 248 721 624, 13, 1}



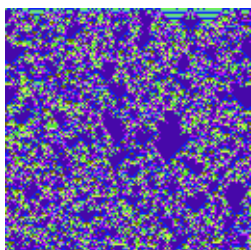
$$\rightarrow \{3 \rightarrow 1.78221 \times 10^{-23}, 4 \rightarrow 1.\}$$

{69 923 971 899 507 339 069 700 589 407 999 952 642 860, 13, 1}



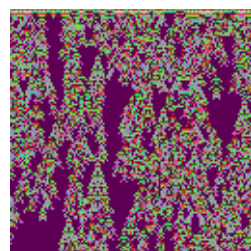
$$\rightarrow \{3 \rightarrow 0.0011631, 4 \rightarrow 0.998837\}$$

{132 499 376 697 020 960 921 340 914 080 281 267 041 999, 13, 1}



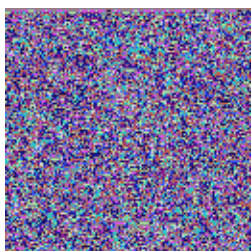
$$\rightarrow \{3 \rightarrow 2.30737 \times 10^{-12}, 4 \rightarrow 1.\}$$

{35 014 283 915 728 677 657 876 181 482 906 443 850 357, 13, 1}



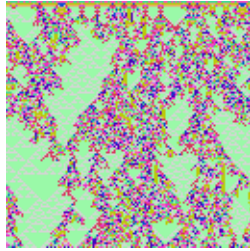
$$\rightarrow \{3 \rightarrow 1.47166 \times 10^{-11}, 4 \rightarrow 1.\}$$

{133 892 375 898 401 605 019 635 538 242 079 018 284 531, 13, 1}



$$\rightarrow \{3 \rightarrow 0.0101289, 4 \rightarrow 0.989871\}$$

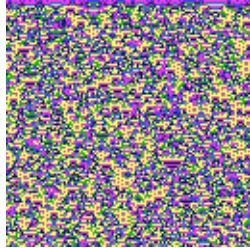
{52 416 312 282 522 512 627 000 697 064 223 540 344 943, 13, 1}



$$\rightarrow \{3 \rightarrow 9.55189 \times 10^{-10}, 4 \rightarrow 1.\}$$

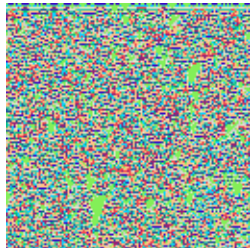
{98 636 982 036 609 683 317 060 849 348 037 053 340 639, 13, 1}

In[5230]:= **HuntCA[1, 13, 500]**



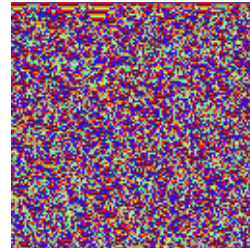
$$\rightarrow \{3 \rightarrow 0.0806118, 4 \rightarrow 0.919388\}$$

{36 978 905 191 674 972 997 379 614 924 270 782 149 480, 13, 1}



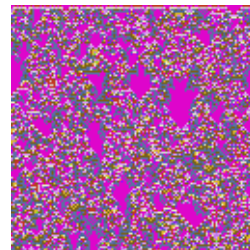
$$\rightarrow \{3 \rightarrow 0.000997316, 4 \rightarrow 0.999003\}$$

{75 863 064 540 699 872 702 813 189 092 120 676 372 403, 13, 1}



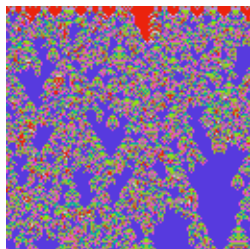
$$\rightarrow \{3 \rightarrow 0.262279, 4 \rightarrow 0.737721\}$$

{115 667 229 275 089 637 882 601 349 280 124 218 429 526, 13, 1}



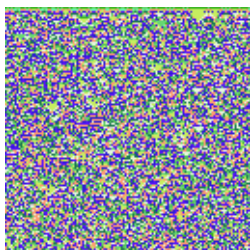
$$\rightarrow \{3 \rightarrow 2.88582 \times 10^{-9}, 4 \rightarrow 1.\}$$

{109 410 208 698 519 042 057 662 926 031 879 610 984 189, 13, 1}



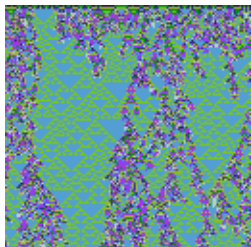
$$\rightarrow \{3 \rightarrow 2.94164 \times 10^{-14}, 4 \rightarrow 1.\}$$

{41 229 732 773 379 174 038 724 590 567 971 707 895 745, 13, 1}



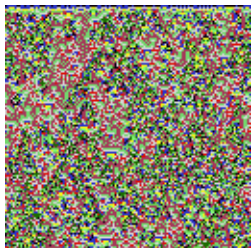
$$\rightarrow \{3 \rightarrow 0.0357819, 4 \rightarrow 0.964218\}$$

{127 076 921 760 414 224 280 194 599 172 476 295 336 431, 13, 1}



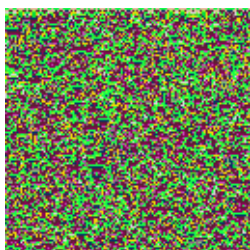
$$\rightarrow \{3 \rightarrow 3.04683 \times 10^{-13}, 4 \rightarrow 1.\}$$

{29 851 419 122 112 002 352 151 950 452 372 723 929 711, 13, 1}



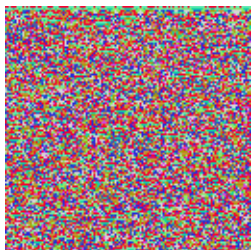
$$\rightarrow \{3 \rightarrow 0.00537911, 4 \rightarrow 0.994621\}$$

{33 921 248 689 992 807 239 092 916 915 715 834 454 441, 13, 1}



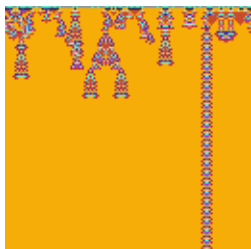
$$\rightarrow \{3 \rightarrow 0.130028, 4 \rightarrow 0.869972\}$$

{102 743 411 887 555 725 250 116 594 593 609 141 587 730, 13, 1}



$$\rightarrow \{3 \rightarrow 0.0265208, 4 \rightarrow 0.973479\}$$

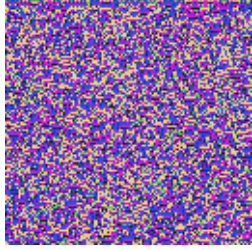
{95 303 205 656 748 805 059 617 567 321 705 581 919 194, 13, 1}



$$\rightarrow \{2 \rightarrow 1.95662 \times 10^{-9}, 4 \rightarrow 1.\}$$

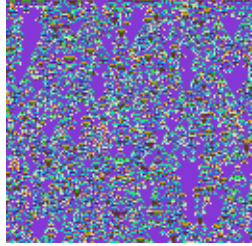
{90 682 208 904 061 287 593 394 310 102 791 870 737 394, 13, 1}





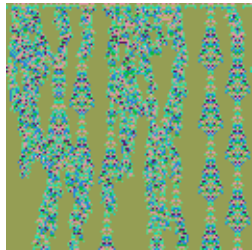
$$\rightarrow \{3 \rightarrow 2.22359 \times 10^{-6}, 4 \rightarrow 0.999998\}$$

{3 796 545 856 721 010 297 830 039 558 032 337 184 236, 13, 1}



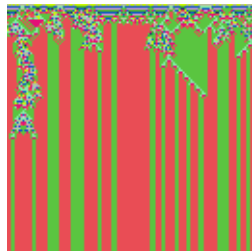
$$\rightarrow \{3 \rightarrow 3.70115 \times 10^{-13}, 4 \rightarrow 1.\}$$

{23 310 725 303 249 823 392 801 503 042 305 622 331 898, 13, 1}



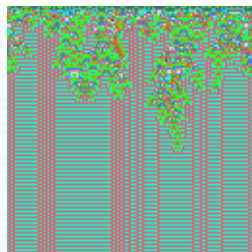
$$\rightarrow \{2 \rightarrow 3.22441 \times 10^{-11}, 4 \rightarrow 1.\}$$

{80 367 842 742 116 297 714 884 737 503 617 202 997 068, 13, 1}



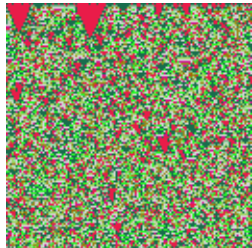
$$\rightarrow \{2 \rightarrow 3.56621 \times 10^{-9}, 4 \rightarrow 1.\}$$

{107 074 386 974 467 672 936 286 929 353 733 132 601 874, 13, 1}



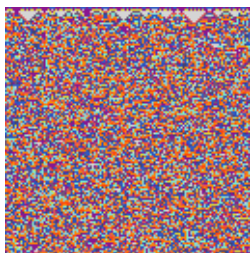
$$\rightarrow \{3 \rightarrow 2.41058 \times 10^{-12}, 4 \rightarrow 1.\}$$

{102 237 322 322 427 101 673 772 805 946 920 371 321 460, 13, 1}



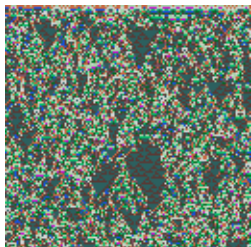
$$\rightarrow \{3 \rightarrow 0.0011502, 4 \rightarrow 0.99885\}$$

{54 417 355 491 189 803 476 697 480 098 113 843 692 219, 13, 1}



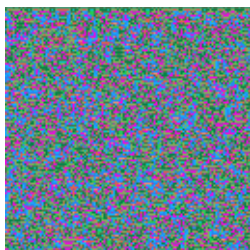
$$\rightarrow \{3 \rightarrow 0.389312, 4 \rightarrow 0.610688\}$$

{146 187 302 067 787 097 111 670 659 483 192 512 324 102, 13, 1}



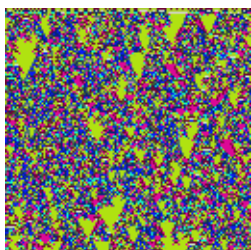
$$\rightarrow \{3 \rightarrow 0.000346863, 4 \rightarrow 0.999653\}$$

{94 654 883 432 861 963 687 687 683 924 720 008 926 011, 13, 1}



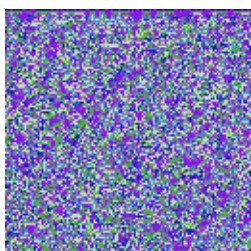
$$\rightarrow \{3 \rightarrow 0.0154102, 4 \rightarrow 0.98459\}$$

{124 763 925 634 040 701 443 008 170 594 682 882 686 045, 13, 1}



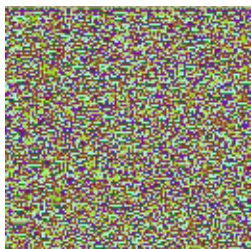
$$\rightarrow \{3 \rightarrow 1.59102 \times 10^{-20}, 4 \rightarrow 1.\}$$

{88 663 581 301 291 460 660 543 322 410 966 901 184 388, 13, 1}



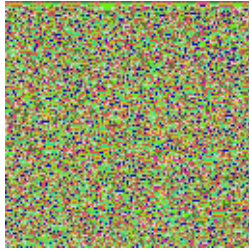
$$\rightarrow \{3 \rightarrow 0.150544, 4 \rightarrow 0.849456\}$$

{50 239 344 594 284 040 829 771 252 889 905 095 831 358, 13, 1}

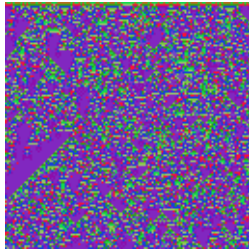
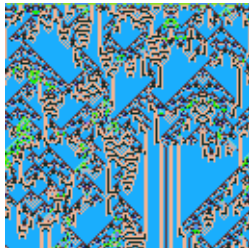
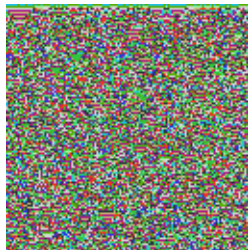


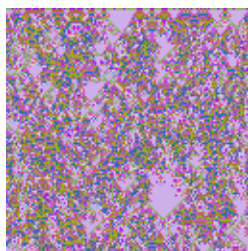
$$\rightarrow \{3 \rightarrow 0.0361917, 4 \rightarrow 0.963808\}$$

{12 006 150 168 678 012 089 508 765 724 692 312 016 692, 13, 1}


 $\rightarrow \{3 \rightarrow 0.0107139, 4 \rightarrow 0.989286\}$ 
 $\{156\ 356\ 731\ 087\ 400\ 307\ 376\ 852\ 342\ 285\ 156\ 468\ 925\ 508, 13, 1\}$ 

In[5251]:= **HuntCA[1, 13, 200]**


 $\rightarrow \{3 \rightarrow 7.52576 \times 10^{-6}, 4 \rightarrow 0.999992\}$ 
 $\{152\ 713\ 903\ 736\ 964\ 182\ 439\ 220\ 485\ 476\ 385\ 439\ 829\ 331, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 4.72759 \times 10^{-19}, 4 \rightarrow 1.\}$ 
 $\{9\ 640\ 493\ 843\ 766\ 538\ 210\ 055\ 489\ 285\ 985\ 904\ 689\ 611, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.378063, 4 \rightarrow 0.621937\}$ 
 $\{55\ 251\ 474\ 083\ 283\ 379\ 545\ 529\ 556\ 957\ 059\ 738\ 443\ 819, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.359491, 4 \rightarrow 0.640509\}$ 
 $\{79\ 871\ 923\ 404\ 081\ 230\ 050\ 581\ 486\ 855\ 030\ 916\ 719\ 594, 13, 1\}$ 

 $\rightarrow \{3 \rightarrow 1.87784 \times 10^{-10}, 4 \rightarrow 1.\}$ 
 $\{40\ 045\ 395\ 620\ 463\ 373\ 582\ 688\ 095\ 865\ 488\ 655\ 467\ 132, 13, 1\}$



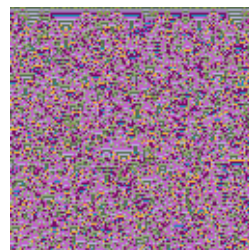
$$\rightarrow \{3 \rightarrow 5.23674 \times 10^{-25}, 4 \rightarrow 1.\}$$

{44 450 771 445 203 147 846 749 581 491 818 292 931 006, 13, 1}



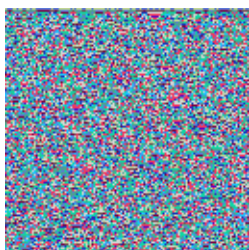
$$\rightarrow \{3 \rightarrow 0.112877, 4 \rightarrow 0.887123\}$$

{158 394 737 167 844 287 992 276 647 712 850 363 720 581, 13, 1}



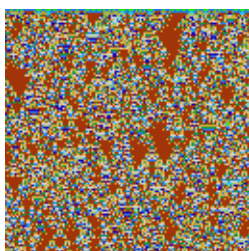
$$\rightarrow \{3 \rightarrow 0.283654, 4 \rightarrow 0.716346\}$$

{134 868 540 673 828 543 726 727 319 574 059 378 492 873, 13, 1}



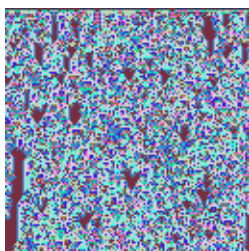
$$\rightarrow \{3 \rightarrow 0.0632966, 4 \rightarrow 0.936703\}$$

{46 148 312 918 893 402 990 665 863 243 839 438 437 488, 13, 1}



$$\rightarrow \{3 \rightarrow 3.72049 \times 10^{-7}, 4 \rightarrow 1.\}$$

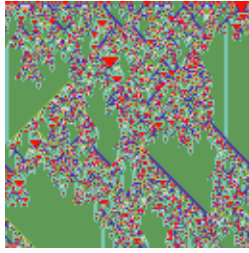
{52 437 200 742 948 966 641 384 573 544 580 747 466 098, 13, 1}



$$\rightarrow \{3 \rightarrow 0.000108677, 4 \rightarrow 0.999891\}$$

{83 340 758 448 593 173 381 614 182 599 997 152 819 083, 13, 1}

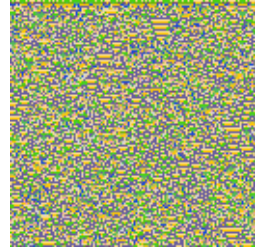




{26 046 329 620 918 624 379 215 969 285 749 564 107 486, 13, 1}

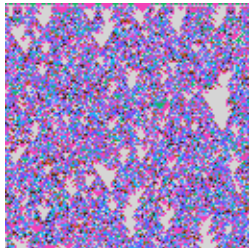
$$\rightarrow \{3 \rightarrow 9.60795 \times 10^{-11}, 4 \rightarrow 1.\}$$

In[5276]:= **HuntCA[1, 13, 200]**



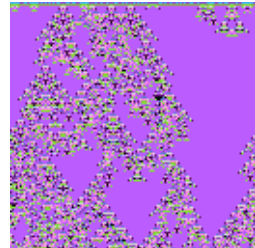
{146 902 749 132 177 566 937 092 906 205 079 055 646 105, 13, 1}

$$\rightarrow \{3 \rightarrow 0.00025522, 4 \rightarrow 0.999745\}$$



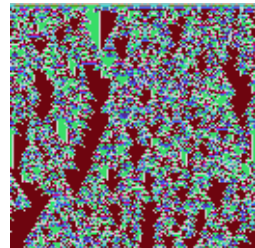
{44 844 820 314 719 376 799 992 603 164 795 445 525 598, 13, 1}

$$\rightarrow \{3 \rightarrow 5.51594 \times 10^{-9}, 4 \rightarrow 1.\}$$



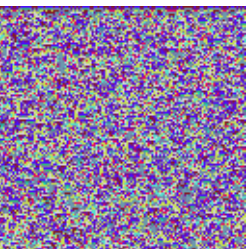
{159 062 582 833 281 238 234 594 439 977 538 154 454 136, 13, 1}

$$\rightarrow \{3 \rightarrow 8.74262 \times 10^{-14}, 4 \rightarrow 1.\}$$



{141 693 002 163 799 767 405 445 407 403 691 554 731 014, 13, 1}

$$\rightarrow \{3 \rightarrow 3.09989 \times 10^{-31}, 4 \rightarrow 1.\}$$



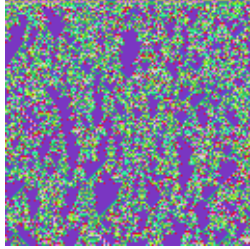
{3 284 060 954 439 538 733 005 059 807 693 809 416 576, 13, 1}

$$\rightarrow \{3 \rightarrow 0.357461, 4 \rightarrow 0.642539\}$$



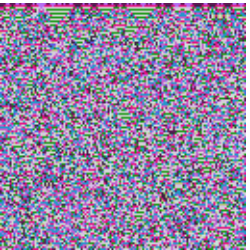
$$\rightarrow \{3 \rightarrow 0.000899003, 4 \rightarrow 0.999101\}$$

{123 422 490 375 037 455 076 055 255 775 006 820 708 334, 13, 1}



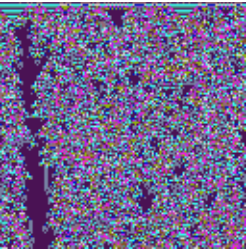
$$\rightarrow \{3 \rightarrow 9.7658 \times 10^{-7}, 4 \rightarrow 0.999999\}$$

{147 997 799 032 214 588 170 325 786 795 287 997 634 559, 13, 1}



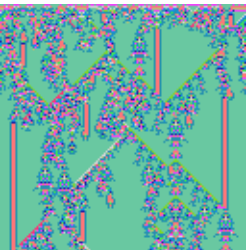
$$\rightarrow \{3 \rightarrow 0.0422285, 4 \rightarrow 0.957771\}$$

{56 332 914 964 927 402 182 235 611 272 994 295 821 224, 13, 1}



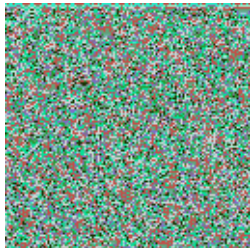
$$\rightarrow \{3 \rightarrow 2.30394 \times 10^{-13}, 4 \rightarrow 1.\}$$

{98 992 052 129 953 338 767 216 186 534 936 125 134 700, 13, 1}



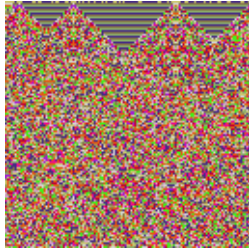
$$\rightarrow \{3 \rightarrow 1.58829 \times 10^{-21}, 4 \rightarrow 1.\}$$

{26 988 579 987 390 253 364 213 109 395 030 864 144 438, 13, 1}



$$\rightarrow \{3 \rightarrow 0.359151, 4 \rightarrow 0.640849\}$$

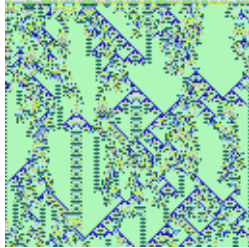
{156 831 879 303 330 360 970 648 560 339 763 188 664 152, 13, 1}



$$\rightarrow \{3 \rightarrow 0.2085, 4 \rightarrow 0.7915\}$$

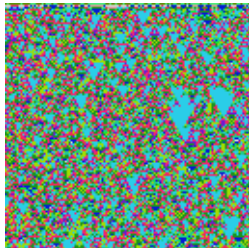
{106 478 817 088 888 946 245 381 957 504 253 393 762 993, 13, 1}

In[5300]:= **HuntCA[1, 14, 200]**



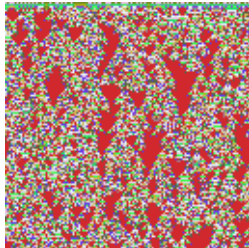
$$\rightarrow \{3 \rightarrow 2.66636 \times 10^{-12}, 4 \rightarrow 1.\}$$

{1394 325 240 005 955 012 161 853 184 680 734 010 642 688 333, 14, 1}



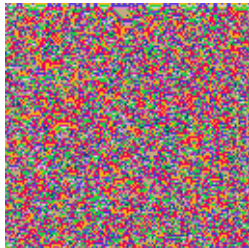
$$\rightarrow \{3 \rightarrow 0.0468394, 4 \rightarrow 0.953161\}$$

{6537 071 249 164 321 410 275 529 168 607 566 935 524 605 034, 14, 1}



$$\rightarrow \{3 \rightarrow 2.64142 \times 10^{-18}, 4 \rightarrow 1.\}$$

{6469 640 751 541 187 733 794 591 430 969 530 947 874 356 865, 14, 1}



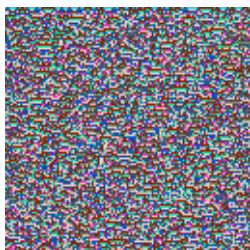
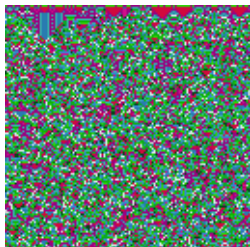
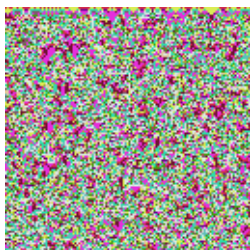
$$\rightarrow \{3 \rightarrow 0.0142411, 4 \rightarrow 0.985759\}$$

{5916 922 560 044 891 177 204 316 408 206 599 148 044 031 303, 14, 1}

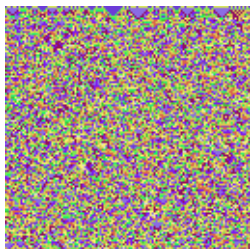
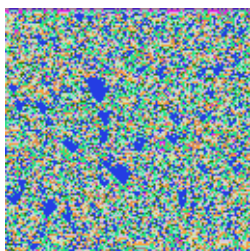


$$\rightarrow \{3 \rightarrow 0.0178049, 4 \rightarrow 0.982195\}$$

{1257 875 053 310 544 857 161 908 551 533 555 172 088 518 145, 14, 1}

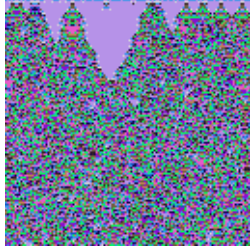
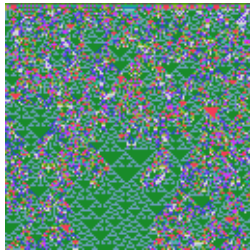
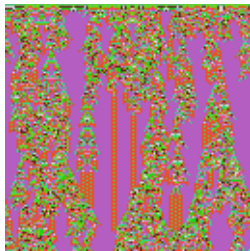

 $\rightarrow \{3 \rightarrow 0.343756, 4 \rightarrow 0.656244\}$ 
 $\{3293\ 530\ 368\ 003\ 699\ 380\ 663\ 716\ 144\ 713\ 923\ 434\ 932\ 976\ 148, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.00110336, 4 \rightarrow 0.998897\}$ 
 $\{2715\ 440\ 480\ 584\ 698\ 025\ 983\ 381\ 218\ 428\ 104\ 454\ 370\ 554\ 387, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.303392, 4 \rightarrow 0.696608\}$ 
 $\{2298\ 742\ 243\ 915\ 377\ 891\ 061\ 698\ 056\ 068\ 394\ 398\ 518\ 085\ 606, 14, 1\}$ 

In[5302]:= **HuntCA[1, 14, 200]**

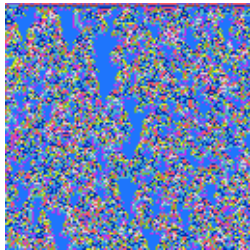

 $\rightarrow \{3 \rightarrow 0.153657, 4 \rightarrow 0.846343\}$ 
 $\{2339\ 259\ 734\ 739\ 915\ 382\ 998\ 164\ 293\ 672\ 361\ 643\ 059\ 169\ 542, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 5.96258 \times 10^{-6}, 4 \rightarrow 0.999994\}$ 
 $\{1858\ 352\ 849\ 099\ 131\ 439\ 640\ 198\ 791\ 092\ 379\ 634\ 819\ 375\ 353, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.177079, 4 \rightarrow 0.822921\}$ 
 $\{5390\ 518\ 844\ 131\ 044\ 821\ 788\ 850\ 388\ 781\ 947\ 613\ 939\ 358\ 566, 14, 1\}$

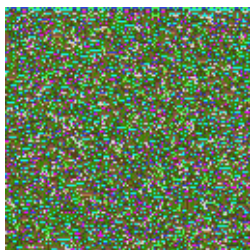



 $\rightarrow \{3 \rightarrow 0.325699, 4 \rightarrow 0.674301\}$ 
 $\{4\ 156\ 628\ 423\ 066\ 742\ 897\ 036\ 965\ 052\ 949\ 673\ 612\ 294\ 856\ 197, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 1.09137 \times 10^{-17}, 4 \rightarrow 1.\}$ 
 $\{6\ 683\ 328\ 142\ 252\ 176\ 552\ 168\ 259\ 285\ 992\ 011\ 890\ 026\ 556\ 076, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0000281975, 4 \rightarrow 0.999972\}$ 
 $\{3\ 752\ 610\ 331\ 026\ 283\ 326\ 783\ 388\ 896\ 321\ 662\ 490\ 535\ 140\ 465, 14, 1\}$ 

 $\rightarrow \{2 \rightarrow 7.92152 \times 10^{-24}, 4 \rightarrow 1.\}$ 
 $\{3\ 329\ 347\ 984\ 649\ 734\ 426\ 771\ 198\ 647\ 570\ 565\ 348\ 143\ 518\ 176, 14, 1\}$ 

In[5305]:= **HuntCA[1, 14, 200]**

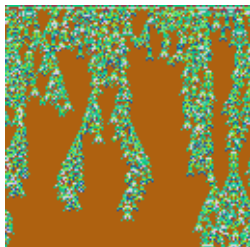

 $\rightarrow \{3 \rightarrow 9.9167 \times 10^{-15}, 4 \rightarrow 1.\}$ 
 $\{1\ 955\ 215\ 184\ 181\ 843\ 770\ 368\ 930\ 670\ 556\ 661\ 429\ 991\ 609\ 042, 14, 1\}$ 

 $\rightarrow \{3 \rightarrow 0.0695533, 4 \rightarrow 0.930447\}$ 
 $\{608\ 436\ 913\ 989\ 700\ 292\ 386\ 986\ 000\ 942\ 076\ 746\ 269\ 759\ 077, 14, 1\}$



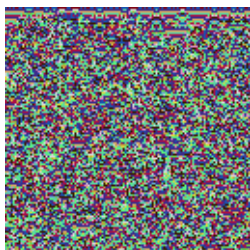
$$\rightarrow \{3 \rightarrow 3.63393 \times 10^{-8}, 4 \rightarrow 1.\}$$

{3 598 042 074 928 295 717 261 416 308 722 996 835 897 873 209, 14, 1}



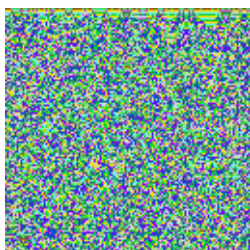
$$\rightarrow \{2 \rightarrow 2.89386 \times 10^{-16}, 4 \rightarrow 1.\}$$

{5 848 470 572 145 749 559 445 514 788 244 103 796 068 326 065, 14, 1}



$$\rightarrow \{3 \rightarrow 0.171639, 4 \rightarrow 0.828361\}$$

{4 408 749 272 177 799 553 695 391 876 988 589 564 665 388 996, 14, 1}



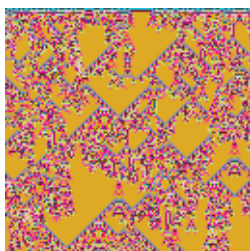
$$\rightarrow \{3 \rightarrow 0.0139893, 4 \rightarrow 0.986011\}$$

{6 944 806 667 270 388 741 109 881 659 144 628 528 912 798 876, 14, 1}



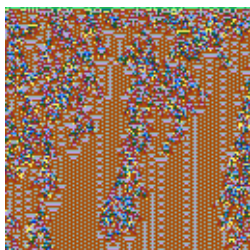
$$\rightarrow \{3 \rightarrow 2.86328 \times 10^{-12}, 4 \rightarrow 1.\}$$

{4 907 399 734 353 272 848 494 038 254 054 069 571 479 598 881, 14, 1}



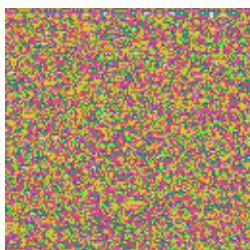
$$\rightarrow \{3 \rightarrow 6.08942 \times 10^{-21}, 4 \rightarrow 1.\}$$

{4 008 128 104 133 267 804 930 402 085 069 465 413 901 753 866, 14, 1}



$\rightarrow \{3 \rightarrow 0.0000894243, 4 \rightarrow 0.999911\}$

$\{2\,063\,850\,678\,658\,703\,322\,976\,745\,028\,917\,188\,088\,675\,076\,709, 14, 1\}$



$\rightarrow \{3 \rightarrow 0.0133138, 4 \rightarrow 0.986686\}$

$\{4\,455\,481\,489\,800\,647\,145\,552\,029\,344\,697\,655\,932\,177\,992\,914, 14, 1\}$



$\rightarrow \{3 \rightarrow 0.252367, 4 \rightarrow 0.747633\}$

$\{3\,826\,421\,174\,370\,170\,746\,885\,037\,701\,563\,576\,053\,609\,068\,403, 14, 1\}$