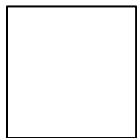




Game of Life



1	2	3
4	X <i>B</i>	5
6	7	8



Dead off



Alive on



Rules

If **off** you turn **on** if
3 neighbors on

If **on** stay **on** if 2 or
3 neighbors on



1	2 <i>2</i>	3
4 <i>1</i>	X <i>[scribble]</i>	5 <i>3</i>
6	7	8

1	2	3
4	X	5
6	7	8

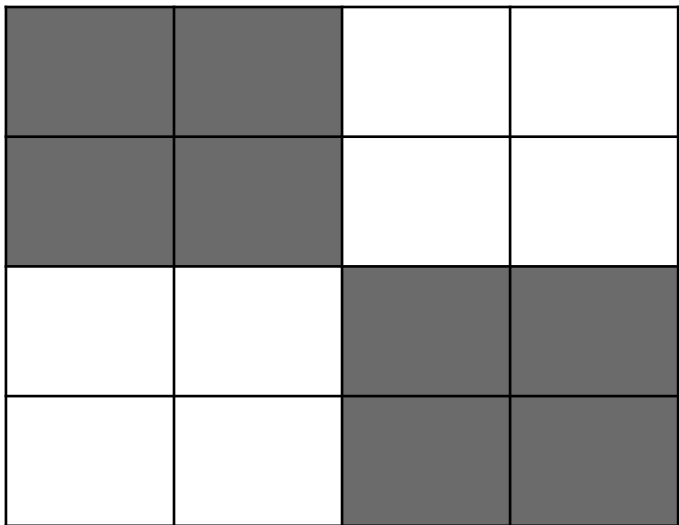


1	2 2	3
4 1	X	5 3
6	7	8 4

		3		
	2	2	2	
		3		

	2	3		
	2	2	1	
		3		



Beacon



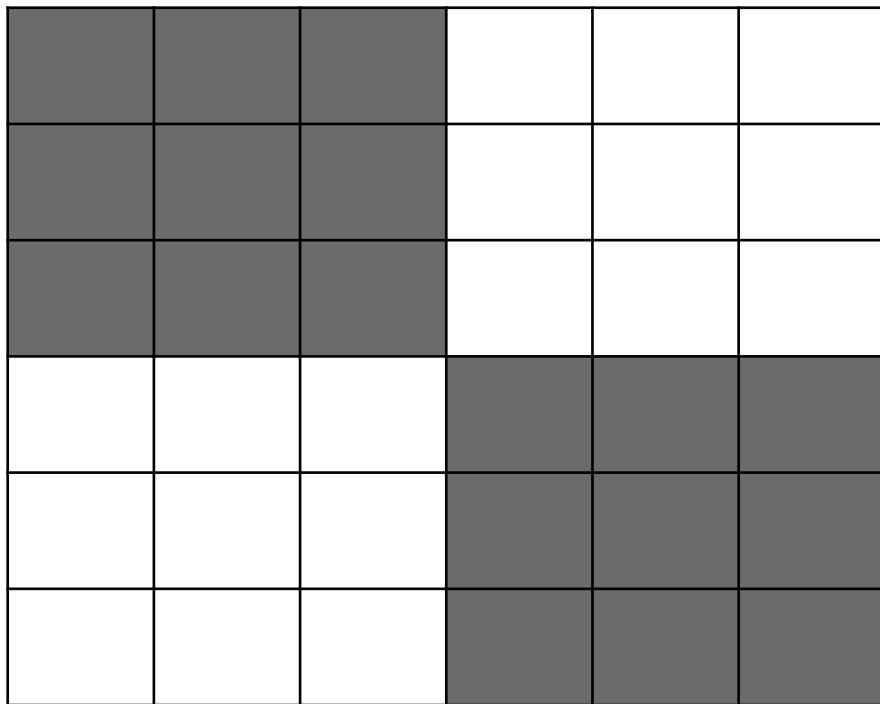
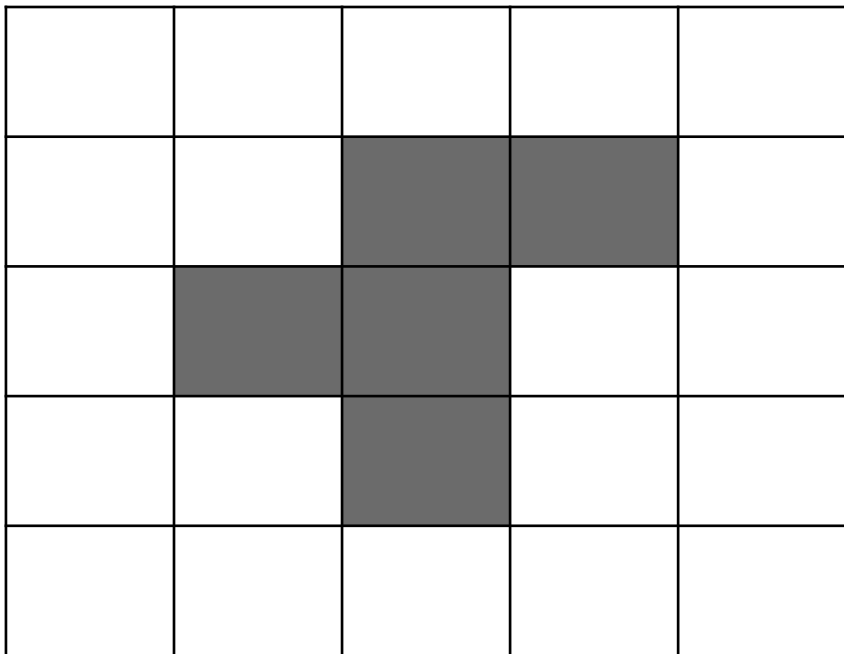


Figure 8



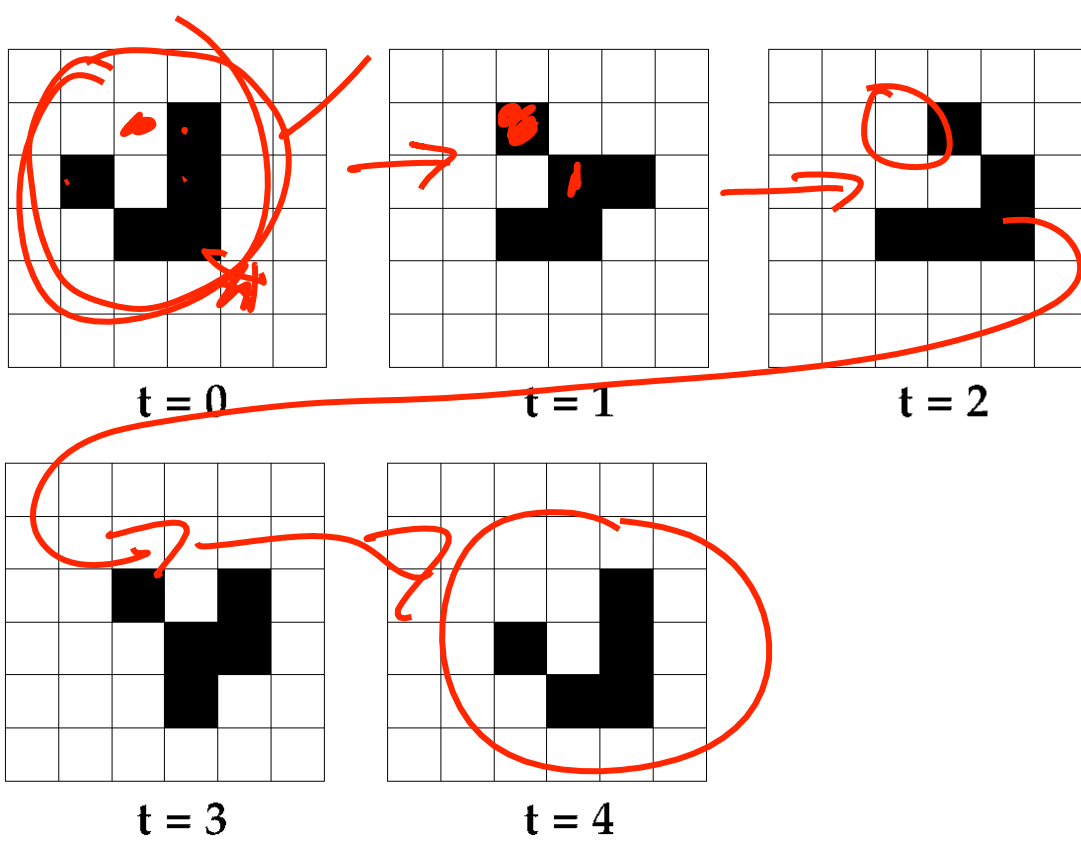


F-Pimento



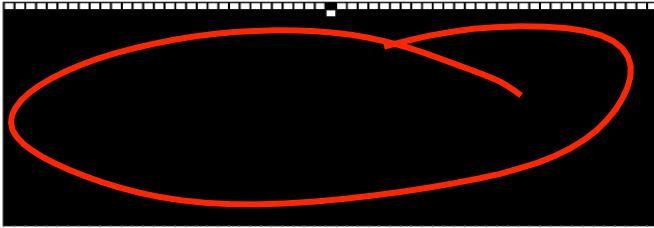
Netlogo





Understand Class of Outcome

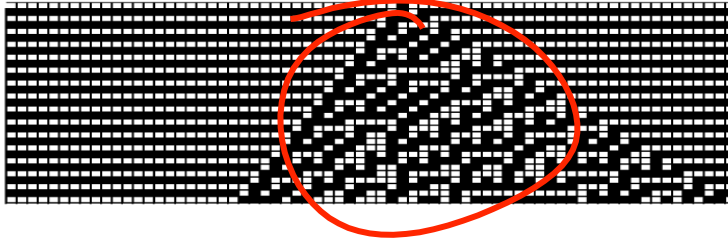
Class I: Rule 251



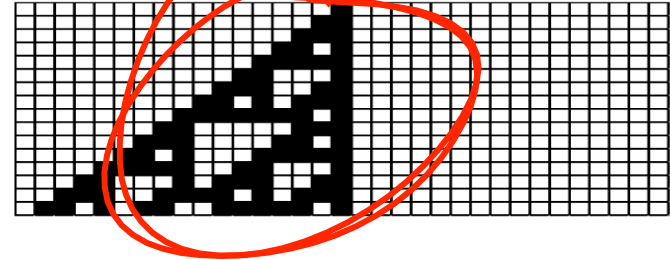
Class II: Rule 119



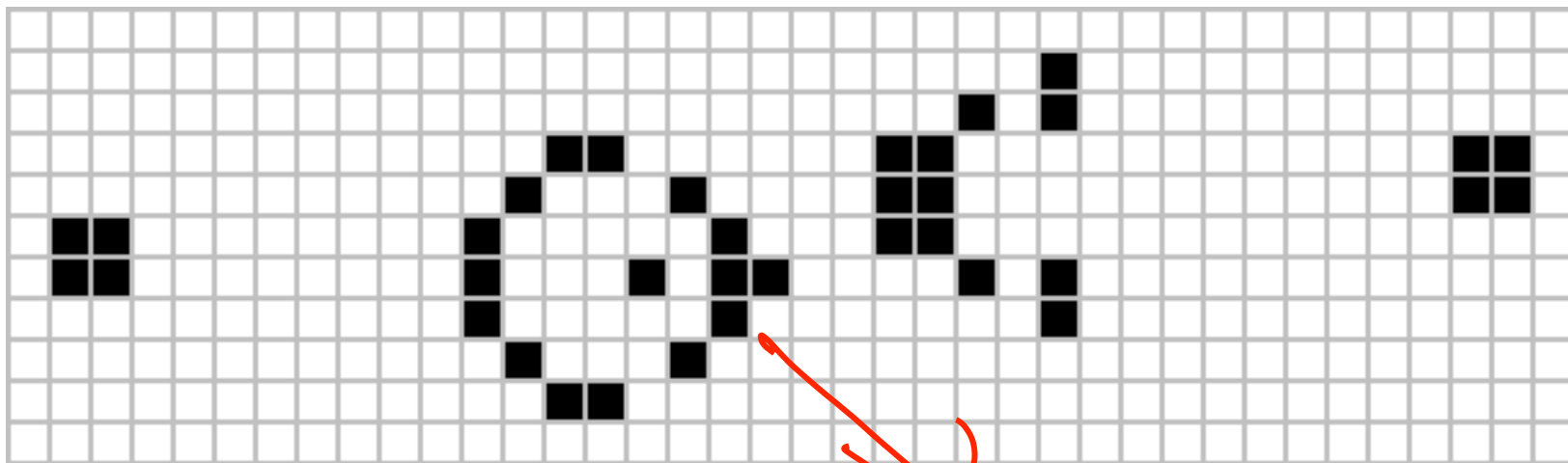
Class III: Rule 45



Class IV: Rule 110



Source: From Wolfram (2002, pp. 55-56)



Self Organization:

Patterns appear without
a designer



Emergence

Functionalities appear:

gliders, glider guns

counters, computers



Logic Right:

Simple rules produce
incredible phenomena



Model Thinking

Scott E Page

