- Strong Artificial Life, its goal is really create artificial lifeforms.
- Weak Artificial Life, rather than creating a living entity, simulates the conditions and the behavior of life.

✓ N/A

2. Life is a complex phenomenon that not only requires individual self-producing and self-sustaining systems but also a historial-collective organization of those individual systems, which brings about characteristic evolutionary dynamics.

Reference:
A Universal Definition of Life: Autonomy and Open-Ended Evolution, Origins of life and evolution of the biosphere. Volume 34, Issue 3, pp 323-346

✓ 2/2

3. These 4 criteria largely cover the definition of living...

1) reproduction; a living being will be capable of produce another living being similar to the original.

2) growth; all living things must have a stage of "development" for some time.

3) Existence in space and time; a living being must exist

4) Decay, death; as to be alive is the opposite of being dead, death is a good criteria to distinguish from "living" and "non living".

✓ 2/2

Living	In the border of living		Not-Living
· yeast	· colonie of ants	· English language	· car
· protozoa	· lettuce from the marisa	· DNA-sequence	· wodden chair
· mule		· river Rhine	· C++ compiler
· hinny		· a tornado	
		· the plasmodium causing Malaria	
		· a dried pea	

according to which definitions did you sort them? -1 1/2

5.

Phase 1: The growing is ordering the "drawing" in a symmetric way

Symmetric growth. First 400 steps approx.

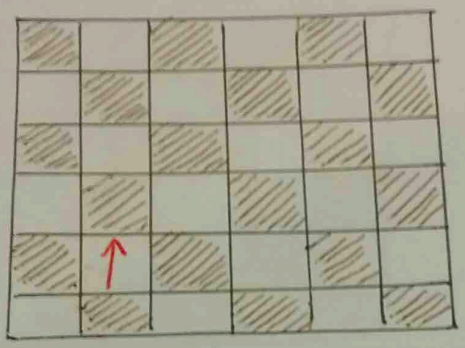
Phase 2: Chaotic growth. In some point the drawing has no any structure.

steps 400 - 10000 aprox.

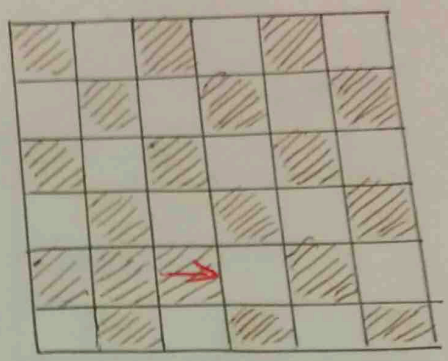
Phase 3: Highway. From step 10'000 (approx) it is possible to see a structure drawed by the Ant. This structure is reapeted ~~until~~ "ad infinitum", and is similar to a highway.

✓ 2/2

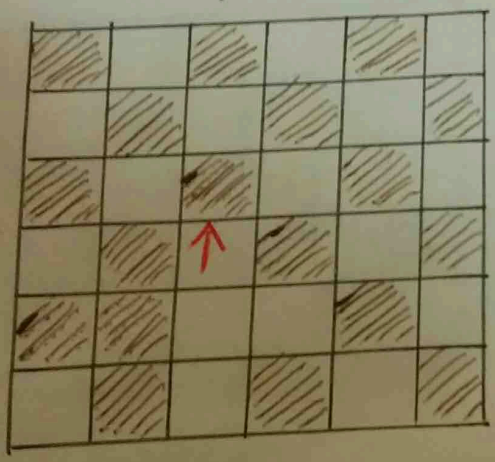
initial state



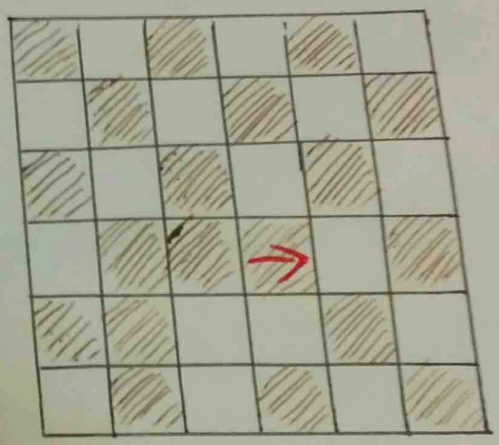
step 1



step 2



step 3



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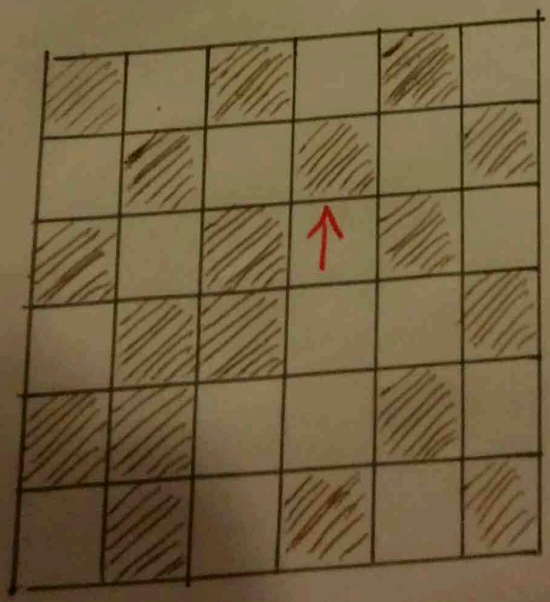
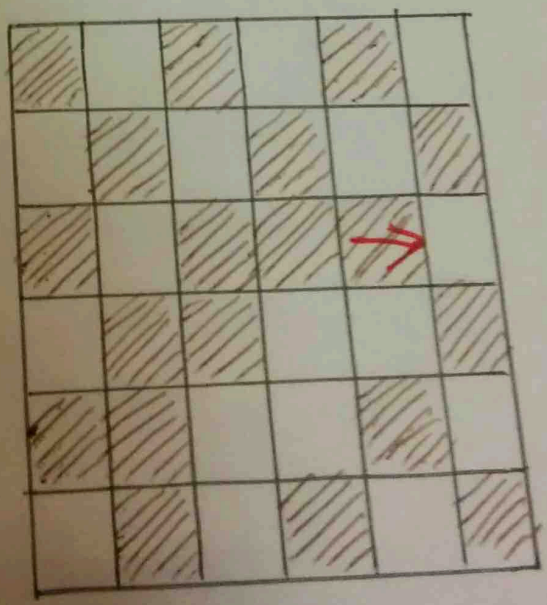
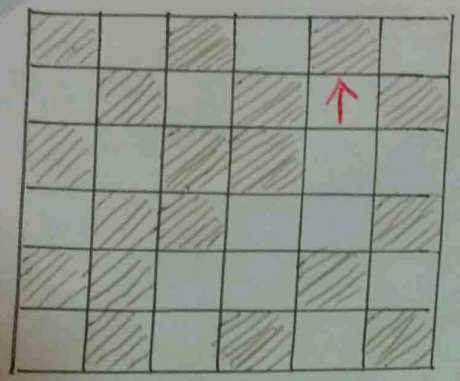


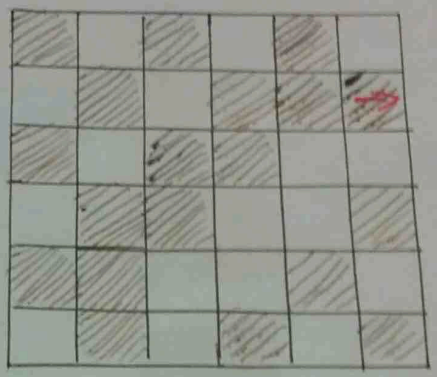
step 5



step 6



step 7

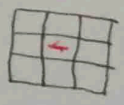


step 8

✓ 2/2

7↳

Case A

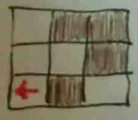
t=0 

t=1 

t=2 

t=3 

...

t=6 

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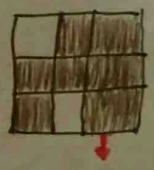
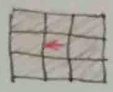
t=11 

Case B



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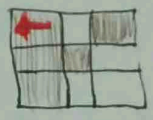

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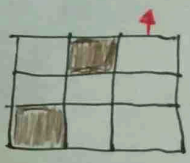

The patterns are quite similar, ~~almost~~ symmetrical. The direction of the heading is different if the head is pointing up or down. But is equal when the heading is pointing to the left or right.

and colors are inverted 1/2 - 1

(8). Turing machines and Langton's Ant they both have the next similarities:

not very formal.

1) They both have a head
2) They can read (scan) a symbol (state) under the current head
3) The current state/symbol can be updated/flipped. 1/2
4) The tape/head is moved to left/right by one square,

so, we can say that Langton's Ant can be called a 2D Turing machine.