

PS 7: Problems 0 and 1

Problem 0: Reading and response

Put your response to the reading below.

IMPORTANT: Your entire response should fit on this page.

Evolving program focuses more on the robustness, adaptability and emergent organization from the interaction of many processes, which makes it more flexible when the task is not defined clearly or meets some unpredictable changes. It is more close to the procedure of body interaction and gives inspiration to AI design. Biological-inspired computing does not contain a central designer, and it operates like the process of natural selection to figure out the good solution. A disadvantage is that it requires lots of time and effort on designing the formula for evaluating the solutions, which could be used to come up with a good solution directly. However, bio-inspired computing significantly helps when confronting the situation that both the underlying form and parameters of the system are unknown. It has great prospects for integrated design and modeling tools.

Problem 1: Working with nested loops and 2-D lists

IMPORTANT: This heading should appear at the very top of the second page.

1-1

x	range(1, x)	y	value printed
2	[1]	1	3
4	[1, 2, 3]	1	5
4	[1, 2, 3]	2	6
4	[1, 2, 3]	3	7
6	[1, 2, 3, 4, 5]	1	7
6	[1, 2, 3, 4, 5]	2	8
6	[1, 2, 3, 4, 5]	3	9
6	[1, 2, 3, 4, 5]	4	10
6	[1, 2, 3, 4, 5]	5	11
			6 5

1-2

a) `twoD[2][1] = 16`

b)

```
for r in twoD:
    print(r[-1])
```

c)

```
twoD = twoD[::-1]
for r in range(len(twoD)):
    print(twoD[r][r])
```