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Week 5: Assignment 5

The due date for submitting this assignment has passed.

Due on 2022-08-31, 23:59 IST.

Assignment submitted on 2022-08-31, 19:44 IST

1) Given each individual exists in a 2-dimensional grid, which is not an acceptable value of tolerance for an individual? ***1 point***

- 9
- 3
- 5
- 6

No, the answer is incorrect.
Score: 0

Accepted Answers:
9

2) In a 2-D simulation of Schelling's Model of Segregation if t=8(where "t" refers to the number of neighbours), will we see any red and blue nodes touching each other once equilibrium has been reached? ***1 point***

- Yes
- No

No, the answer is incorrect.
Score: 0

Accepted Answers:
No

3) In a 2-D Grid of 100 * 100 nodes, at max how many nodes can have 8 neighbours? ***1 point***

- 99 * 99
- 97 * 97

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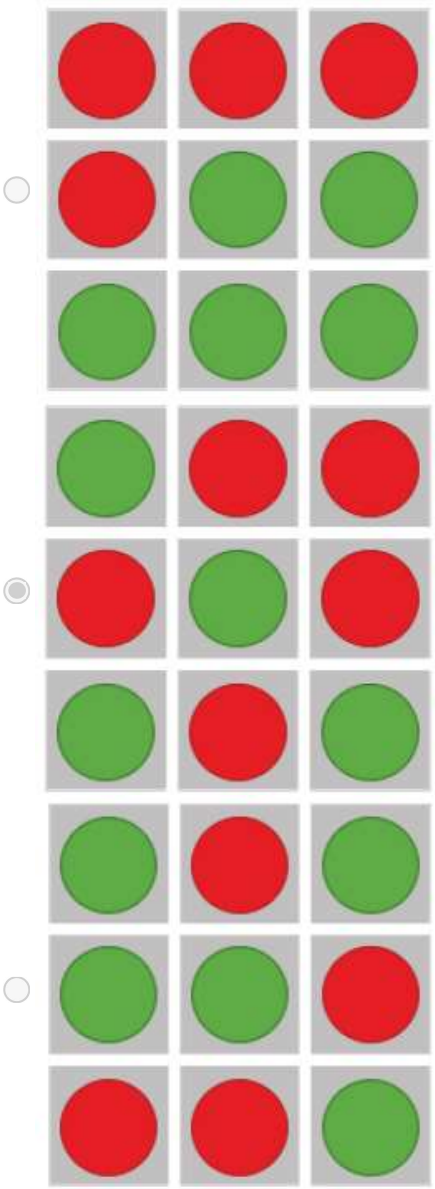
98 * 98

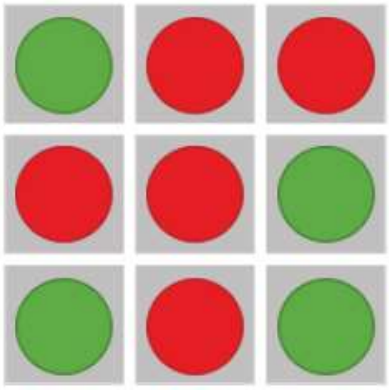
98 * 97

Yes, the answer is correct.
Score: 1

Accepted Answers:
*98 * 98*

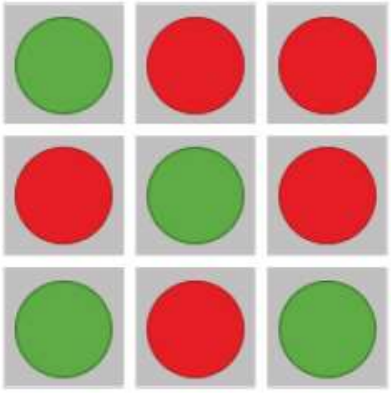
4) In the below situations, given t=4("t" is the number of neighbours), which centre node is NOT stable? ***1 point***



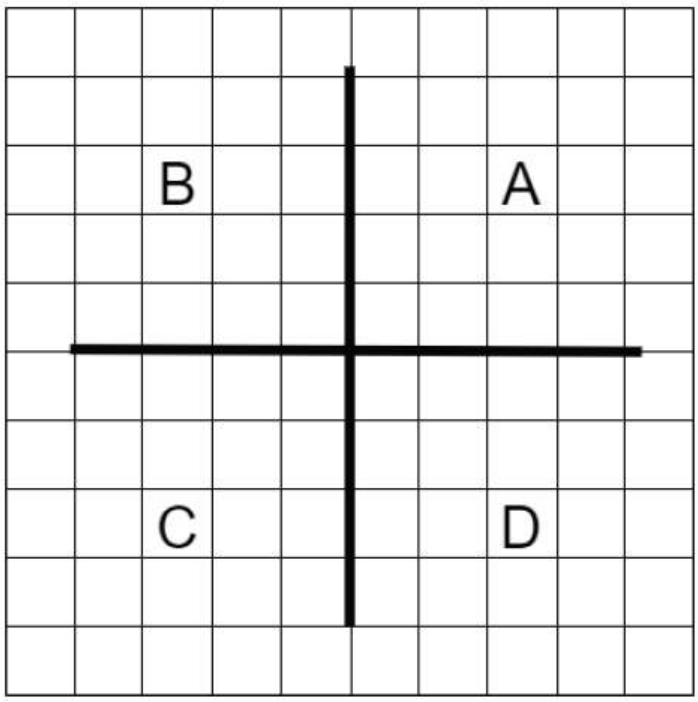


Yes, the answer is correct.
Score: 1

Accepted Answers:



5) A 10 x 10 grid is generated by the given code and is divided into four equal parts namely A, B, C & D. In which section does the point (7,8) lie? ***1 point***




```
import networkx as nx
N =10
G= nx.grid_2d_graph(N,N)
import matplotlib.pyplot as plt
nx.draw(G)
```

```
plt.show()
# distorted graph generated by networkx
G.nodes()
#print(G)
pos = dict((n,n) for n in G.nodes())
#print(pos)
nx.draw(G,pos)
plt.show()
# graph arranged in a grid like manner.
```

- (●) A
- ( ) B
- ( ) C
- ( ) D

Yes, the answer is correct.
Score: 1

Accepted Answers:
A

6) A triangle network with at least two positive relationships is ____ stable. ***1 point***

- ( ) Always
- ( ) Sometimes
- (●) Never

No, the answer is incorrect.
Score: 0

Accepted Answers:
Sometimes

7) Which social belief does the following stability conversion denote? ***1 point***

- ( ) A friend's friend is an enemy.
- ( ) An enemy's friend is a friend.
- ( ) An enemy's enemy is a friend.
- (●) An enemy's friend is a friend.

No, the answer is incorrect.
Score: 0

Accepted Answers:
An enemy's enemy is a friend.

8) **Questions 8, 9 & 10 are connected.** ***1 point***

If country A is at war with B, let's say a certain country X has good relationships with both A and B, what will be a stable situation for country X?

- ( ) A & X = − AND B & X = −

- A & X = + AND B & X = +
- A & X = + AND B & X = −

Yes, the answer is correct.
Score: 1

Accepted Answers:
A & X = + *AND* B & X = −

9) Another country Y is in the same situation as country X as explained in the previous question(Q-8). Y is on good terms with X. Given X chooses to maintain a positive relationship with A, due to how many resulting unstable triangle(s) will Y be unstable? ***1 point***

- 3
- 2
- 4
- 1

Yes, the answer is correct.
Score: 1

Accepted Answers:
2

10) Since Y is friends with all Countries, how many minimum friendships will Y need to break so that we have a stable system(by breaking a friendship, the positive relationship is converted to a negative relationship)? ***1 point***

- 2
- 3
- 4
- 1

No, the answer is incorrect.
Score: 0

Accepted Answers:
1