

College of Engineering

CMP 433: Artificial Intelligence

Project 2

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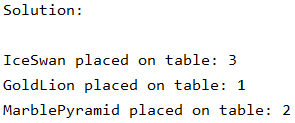
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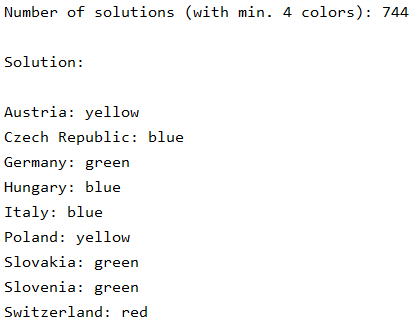
Date of Submission: 20/04/2020

Prof. Michel Pasquier

Sculptures Puzzle:



Map Colouring:





Magic Triangle:

==========MAGIC TRIANGLE WITH 6 CIRCLES==========

Total Number of Possible Solutions for Sum 9 : 6

1

6 5

2 4 3

Total Number of Possible Solutions for Sum 10 : 6

1

6 4

3 2 5

Total Number of Possible Solutions for Sum 11 : 6

2

5 3

4 1 6

Total Number of Possible Solutions for Sum 12 : 6

4

3 2

5 1 6

==========MAGIC TRIANGLE WITH 9 CIRCLES==========

Total Number of Possible Solutions for Sum 17 : 96

1

7 9

6 5

3 4 8 2

Total Number of Possible Solutions for Sum 18 : 0

Total Number of Possible Solutions for Sum 19 : 192

1

9 8

2 6

7 3 5 4

Total Number of Possible Solutions for Sum 20 : 288

1

3 8

7 6

9 2 4 5

Total Number of Possible Solutions for Sum 21 : 192

3

8 7

1 5

9 4 2 6

Total Number of Possible Solutions for Sum 22 : 0

Total Number of Possible Solutions for Sum 23 : 96

7

1 5

6 3

9 4 2 8

Interview Scheduling:

Possible Schedules (without considering preferences):

Ali: 3pm, Dan: 4pm, Bob: 2pm, Cyl: 1pm

Ali: 3pm, Dan: 4pm, Bob: 1pm, Cyl: 2pm

Ali: 1pm, Dan: 4pm, Bob: 3pm, Cyl: 2pm

Ali: 1pm, Dan: 4pm, Bob: 2pm, Cyl: 3pm

Ali: 4pm, Dan: 1pm, Bob: 3pm, Cyl: 2pm

Ali: 4pm, Dan: 1pm, Bob: 2pm, Cyl: 3pm

Possible Schedules (considering preferences):

Ali: 3pm, Dan: 4pm, Bob: 2pm, Cyl: 1pm

N-queens Problem: