

```
/Users/abhishapurushottam/anaconda3/envs/Assignment3/bin/bin/python
/Users/abhishapurushottam/PRO/Assignments/2023Spr_Projects/regular_sudoku_different_siz
es.py
```

```
pygame 2.3.0 (SDL 2.24.2, Python 3.10.0)
```

```
Hello from the pygame community. https://www.pygame.org/contribute.html
```

```
valid and solved board, hidden to player
```

```
-----
1 7 5 | 3 9 4 | 8 6 2
9 8 2 | 1 6 5 | 7 4 3
6 3 4 | 2 8 7 | 9 5 1
-----
4 5 9 | 7 1 2 | 3 8 6
7 1 8 | 4 3 6 | 5 2 9
3 2 6 | 8 5 9 | 4 1 7
-----
2 4 1 | 9 7 8 | 6 3 5
8 6 7 | 5 2 3 | 1 9 4
5 9 3 | 6 4 1 | 2 7 8
-----
```

```
Welcome to the Sudoku game!
```

```
solutions found: 3
```

```
solutions remaining to be solved: 5
```

```
solutions remaining to be solved: 24
```

```
solutions remaining to be solved: 2
```

```
solutions remaining to be solved: 1
```

```
valid and solved board, hidden to player
```

```
-----
8 5 1 | 2 4 9 | 7 6 3
6 2 3 | 5 7 1 | 8 9 4
7 9 4 | 8 3 6 | 2 1 5
-----
4 8 5 | 6 9 7 | 3 2 1
3 1 7 | 4 2 5 | 9 8 6
9 6 2 | 3 1 8 | 4 5 7
-----
1 3 9 | 7 6 2 | 5 4 8
5 4 6 | 9 8 3 | 1 7 2
2 7 8 | 1 5 4 | 6 3 9
-----
```

Welcome to the Sudoku game!

solutions found: 2

solutions remaining to be solved: 8

solutions remaining to be solved: 2

solutions remaining to be solved: 2

solutions remaining to be solved: 7

solutions remaining to be solved: 3

solutions remaining to be solved: 2

solutions remaining to be solved: 1

valid and solved board, hidden to player

```
-----  
7 5 8 | 9 4 3 | 2 6 1  
6 1 4 | 2 8 7 | 3 9 5  
2 3 9 | 1 6 5 | 4 7 8  
-----
```

```
1 8 3 | 5 2 9 | 6 4 7  
5 4 7 | 8 3 6 | 1 2 9  
9 2 6 | 7 1 4 | 8 5 3  
-----
```

```
4 9 1 | 6 5 8 | 7 3 2  
8 6 5 | 3 7 2 | 9 1 4  
3 7 2 | 4 9 1 | 5 8 6  
-----
```

Welcome to the Sudoku game!

solutions found: 1

-----Sandwich-----

[17, 13, 27, 13, 35, 8, 6, 29, 0] [7, 0, 25, 35, 0, 7, 0, 27, 8]

valid and solved board, hidden to player

```
-----  
4 6 5 | 1 8 2 | 7 9 3  
7 1 3 | 6 4 9 | 8 2 5  
8 9 2 | 5 3 7 | 6 4 1  
-----
```

```
3 4 9 | 7 6 1 | 2 5 8  
1 8 7 | 4 2 5 | 3 6 9  
2 5 6 | 3 9 8 | 1 7 4  
-----
```

```
5 2 4 | 8 1 6 | 9 3 7  
9 7 8 | 2 5 3 | 4 1 6
```

6 3 1 | 9 7 4 | 5 8 2

-----

Welcome to the Sudoku game!

solutions found: 3

solutions remaining to be solved: 15

solutions remaining to be solved: 9

solutions remaining to be solved: 11

solutions remaining to be solved: 3

solutions remaining to be solved: 4

solutions remaining to be solved: 16

solutions remaining to be solved: 37

solutions remaining to be solved: 8

solutions remaining to be solved: 6

solutions remaining to be solved: 56

solutions remaining to be solved: 22

solutions remaining to be solved: 12

solutions remaining to be solved: 24

solutions remaining to be solved: 22

solutions remaining to be solved: 7

solutions remaining to be solved: 3

solutions remaining to be solved: 16

solutions remaining to be solved: 7

solutions remaining to be solved: 17

solutions remaining to be solved: 25

solutions remaining to be solved: 149

solutions remaining to be solved: 29

solutions remaining to be solved: 6

solutions remaining to be solved: 14

solutions remaining to be solved: 34

solutions remaining to be solved: 13

solutions remaining to be solved: 23

solutions remaining to be solved: 12

solutions remaining to be solved: 8

solutions remaining to be solved: 13

solutions remaining to be solved: 26

solutions remaining to be solved: 3

solutions remaining to be solved: 102

solutions remaining to be solved: 46

solutions remaining to be solved: 65

solutions remaining to be solved: 28

solutions remaining to be solved: 6

solutions remaining to be solved: 42  
solutions remaining to be solved: 103  
solutions remaining to be solved: 3  
solutions remaining to be solved: 9  
solutions remaining to be solved: 10  
solutions remaining to be solved: 4  
solutions remaining to be solved: 36  
solutions remaining to be solved: 36  
solutions remaining to be solved: 2  
solutions remaining to be solved: 4  
solutions remaining to be solved: 3  
solutions remaining to be solved: 45  
solutions remaining to be solved: 13  
solutions remaining to be solved: 12  
solutions remaining to be solved: 7  
solutions remaining to be solved: 11  
solutions remaining to be solved: 2  
solutions remaining to be solved: 12  
solutions remaining to be solved: 68  
solutions remaining to be solved: 318  
solutions remaining to be solved: 17  
solutions remaining to be solved: 13  
solutions remaining to be solved: 13  
solutions remaining to be solved: 2  
solutions remaining to be solved: 12  
solutions remaining to be solved: 1  
valid and solved board, hidden to player

-----  
1 5 4 | 6 9 2 | 3 8 7  
2 3 8 | 4 1 7 | 6 5 9  
7 9 6 | 3 5 8 | 4 2 1  
-----

6 4 9 | 8 2 1 | 7 3 5  
3 1 2 | 7 4 5 | 9 6 8  
8 7 5 | 9 6 3 | 1 4 2  
-----

9 8 1 | 2 3 4 | 5 7 6  
5 2 3 | 1 7 6 | 8 9 4  
4 6 7 | 5 8 9 | 2 1 3  
-----

Welcome to the Sudoku game!

solutions found: 12  
solutions remaining to be solved: 6  
solutions remaining to be solved: 4  
solutions remaining to be solved: 2  
solutions remaining to be solved: 10  
solutions remaining to be solved: 18  
solutions remaining to be solved: 2  
solutions remaining to be solved: 8  
solutions remaining to be solved: 2  
solutions remaining to be solved: 20  
solutions remaining to be solved: 4  
solutions remaining to be solved: 2  
solutions remaining to be solved: 9  
solutions remaining to be solved: 24  
solutions remaining to be solved: 6  
solutions remaining to be solved: 4  
solutions remaining to be solved: 2  
solutions remaining to be solved: 1  
valid and solved board, hidden to player

```
-----  
3 9 7 | 8 5 6 | 2 4 1  
6 5 1 | 7 2 4 | 3 9 8  
4 8 2 | 1 3 9 | 7 5 6  
-----  
8 6 5 | 4 1 2 | 9 7 3  
9 1 4 | 5 7 3 | 6 8 2  
2 7 3 | 6 9 8 | 5 1 4  
-----  
7 2 6 | 9 8 1 | 4 3 5  
5 4 8 | 3 6 7 | 1 2 9  
1 3 9 | 2 4 5 | 8 6 7  
-----
```

Welcome to the Sudoku game!

solutions found: 1  
-----Sandwich-----  
[32, 3, 23, 23, 11, 8, 0, 6, 0] [7, 6, 20, 23, 11, 2, 18, 35, 11]  
-----  
valid and solved board, hidden to player  
-----  
9 4 6 | 2 5 7 | 8 1 3  
5 8 1 | 3 9 6 | 4 7 2

2 3 7 | 1 4 8 | 5 6 9

-----

1 5 2 | 6 7 3 | 9 8 4

4 9 3 | 8 1 5 | 6 2 7

7 6 8 | 4 2 9 | 3 5 1

-----

3 1 9 | 5 8 2 | 7 4 6

8 7 4 | 9 6 1 | 2 3 5

6 2 5 | 7 3 4 | 1 9 8

-----

Welcome to the Sudoku game!

solutions found: 30

solutions remaining to be solved: 55

solutions remaining to be solved: 3

solutions remaining to be solved: 5

solutions remaining to be solved: 1

-----Sandwich-----

[5, 4, 30, 3, 16, 18, 19, 14, 16] [16, 0, 30, 3, 35, 20, 8, 0, 10]

-----

valid and solved board, hidden to player

-----

7 6 9 | 5 1 4 | 8 3 2

5 3 8 | 7 2 9 | 4 1 6

1 4 2 | 6 8 3 | 7 9 5

-----

2 1 3 | 9 5 8 | 6 7 4

6 9 7 | 3 4 2 | 1 5 8

8 5 4 | 1 6 7 | 3 2 9

-----

9 2 6 | 8 3 1 | 5 4 7

4 8 1 | 2 7 5 | 9 6 3

3 7 5 | 4 9 6 | 2 8 1

-----

Welcome to the Sudoku game!

solutions found: 21

solutions remaining to be solved: 92

solutions remaining to be solved: 23

solutions remaining to be solved: 137

solutions remaining to be solved: 10  
solutions remaining to be solved: 1  
valid and solved board, hidden to player

```
-----  
7 3 4 | 2 1 6 | 8 5 9  
9 5 1 | 8 3 7 | 2 4 6  
8 6 2 | 9 4 5 | 3 7 1  
-----  
3 8 7 | 1 9 2 | 5 6 4  
4 2 5 | 6 7 8 | 1 9 3  
1 9 6 | 4 5 3 | 7 2 8  
-----  
2 1 8 | 5 6 4 | 9 3 7  
6 7 9 | 3 2 1 | 4 8 5  
5 4 3 | 7 8 9 | 6 1 2  
-----
```

Welcome to the Sudoku game!

solutions found: 1  
valid and solved board, hidden to player

```
-----  
8 6 9 | 7 1 2 | 5 3 4  
5 3 1 | 6 9 4 | 8 2 7  
4 7 2 | 8 5 3 | 9 1 6  
-----  
6 2 3 | 1 4 8 | 7 5 9  
1 4 8 | 9 7 5 | 3 6 2  
7 9 5 | 3 2 6 | 1 4 8  
-----  
9 5 7 | 2 6 1 | 4 8 3  
2 8 4 | 5 3 9 | 6 7 1  
3 1 6 | 4 8 7 | 2 9 5  
-----
```

Welcome to the Sudoku game!

solutions found: 4  
solutions remaining to be solved: 1

Process finished with exit code 0