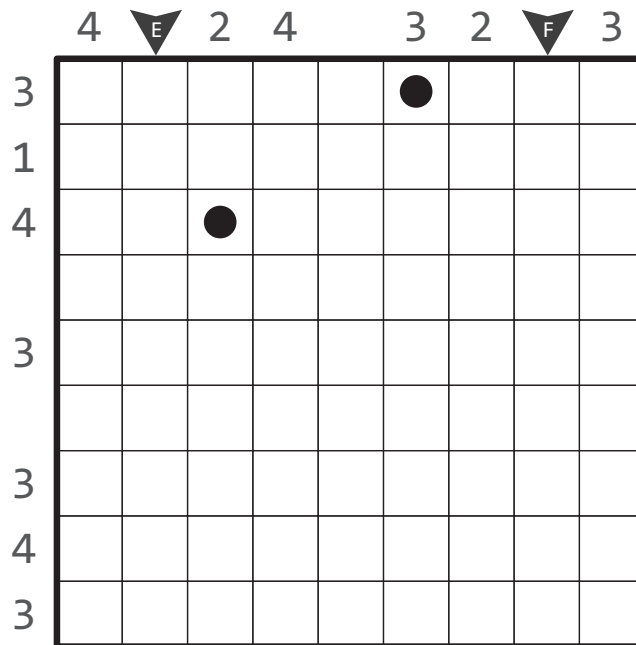
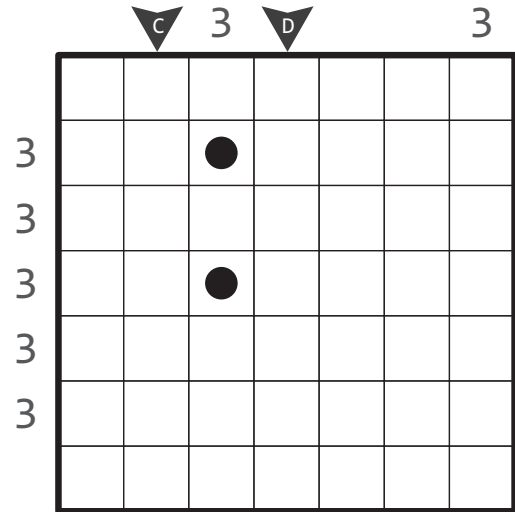
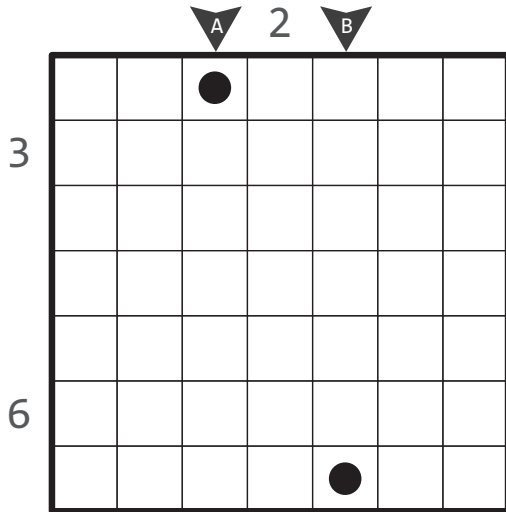


**Snake**

**1 + 2 + 3 points**

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers outside the grid indicate the number of snake cells in that row/column.

Answer key:



**Snake**

**7 points**

Refer to previous page for rules.

|   |     |   |   |   |     |   |     |   |  |   |  |     |
|---|-----|---|---|---|-----|---|-----|---|--|---|--|-----|
|   |     | 3 |   | 2 | ▼ H | 3 | ▼ I | 1 |  | 7 |  | 11  |
| 3 |     |   |   |   |     |   |     |   |  | ● |  |     |
| 7 |     |   |   |   |     |   |     |   |  |   |  |     |
| 8 |     |   |   |   |     |   |     |   |  |   |  |     |
|   |     |   |   |   |     |   |     |   |  |   |  |     |
|   |     |   |   |   |     |   |     |   |  |   |  |     |
|   | ▶ G |   |   |   |     |   |     |   |  |   |  | ◀ 4 |
|   |     |   |   |   |     |   |     |   |  |   |  |     |
| 7 |     |   |   |   |     |   |     |   |  |   |  |     |
| 3 |     |   |   |   |     |   |     |   |  |   |  |     |
| 4 |     |   | ● |   |     |   |     |   |  |   |  |     |

**Horse Snake**

**2 + 5 points**

- Apply Standard Snake rules.
- The numbers inside the grid indicate the number of snake parts in the knight step from the clue indicated.
- The clue “?” can be replaced by a number greater than zero.
- The cells with cross cannot be a part of the snake

Answer key:

|   |   |     |   |     |  |   |   |
|---|---|-----|---|-----|--|---|---|
|   |   | ▼ A |   | ▼ B |  |   | ● |
| 2 |   |     |   |     |  | 3 |   |
| 3 |   |     | 5 |     |  |   | 2 |
|   |   |     |   |     |  |   |   |
|   | 1 |     |   |     |  |   | 2 |
| ● |   |     |   |     |  |   |   |

▶  
 1  
 2  
 ▶

|  |   |  |     |  |  |     |  |
|--|---|--|-----|--|--|-----|--|
|  |   |  | ▼ C |  |  | ▼ D |  |
|  |   |  | ●   |  |  |     |  |
|  | 1 |  |     |  |  | 2   |  |
|  |   |  |     |  |  |     |  |
|  | 3 |  |     |  |  | 2   |  |
|  |   |  |     |  |  |     |  |
|  |   |  | ●   |  |  |     |  |

# Horse Snake

6 + 10 points

Refer to previous page for rules.

A 9x9 grid puzzle. The grid contains the following elements:

- Row 1: (1,1) black dot, (1,2)=2, (1,8)=1, (1,9) empty.
- Row 2: (2,5)=X, (2,9) empty.
- Row 3: (3,3)=2, (3,6)=3, (3,9) empty.
- Row 4: (4,5)=5, (4,9) empty.
- Row 5: (5,3)=2, (5,9) empty.
- Row 6: (6,2)=?, (6,5)=5, (6,9) empty.
- Row 7: (7,3)=X, (7,9) empty.
- Row 8: (8,1)=0, (8,6)=3, (8,9) black dot.

Clues: E (left of row 2), F (top of row 1), 3 (right of row 4).

A 10x10 grid puzzle. The grid contains the following elements:

- Row 1: (1,1)=X, (1,4)=2, (1,7)=2, (1,10)=X.
- Row 2: (2,2)=6, (2,5)=X, (2,10) empty.
- Row 3: (3,7)=1, (3,10)=2.
- Row 4: (4,1)=1, (4,6)=black dot.
- Row 5: (5,5)=5, (5,10) empty.
- Row 6: (6,4)=1, (6,10)=0.
- Row 7: (7,1)=3, (7,3)=5, (7,10) empty.
- Row 8: (8,4)=X, (8,8)=7.
- Row 9: (9,1)=X, (9,2)=1, (9,6)=0, (9,10)=X.

Clues: G (left of row 2), H (left of row 6), I (top of row 1), 4 (right of row 6).


# Summed Snake

3 + 4 + 6 points

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers starting 1 are put along the path of the snake.
- Numbers outside the grid indicate the sum of all the snake parts in particular row and column.


Answer key:

|     |    |     |  |     |    |
|-----|----|-----|--|-----|----|
|     | 42 | ▼ A |  | ▼ B | 47 |
| 18  |    |     |  |     |    |
|     | 1  |     |  |     |    |
| 10  |    |     |  |     |    |
|     |    |     |  |     |    |
| 18  |    |     |  |     |    |
|     |    |     |  |     | 29 |
| 144 |    |     |  |     |    |




1  
2

|  |    |    |    |  |     |    |     |
|--|----|----|----|--|-----|----|-----|
|  | 35 | 37 | 19 |  | 125 | 64 | 112 |
|  |    |    |    |  |     |    |     |
|  |    |    |    |  |     |    | 28  |
|  |    |    | 1  |  |     |    |     |
|  |    |    |    |  |     |    |     |
|  |    |    |    |  |     |    |     |
|  |    |    |    |  |     |    |     |
|  |    |    |    |  |     |    |     |
|  |    |    |    |  |     |    |     |



C  
71  
D

|     |    |    |    |  |    |  |     |
|-----|----|----|----|--|----|--|-----|
|     | 22 |    | 46 |  | 63 |  | ▼ F |
| 54  |    |    |    |  |    |  |     |
| ▼ E |    |    |    |  |    |  |     |
|     |    | 1  |    |  |    |  |     |
| 63  |    |    |    |  |    |  |     |
|     |    |    |    |  |    |  |     |
| 26  |    |    |    |  |    |  |     |
|     |    | 41 |    |  |    |  |     |
|     |    |    |    |  |    |  |     |
|     |    |    |    |  |    |  |     |



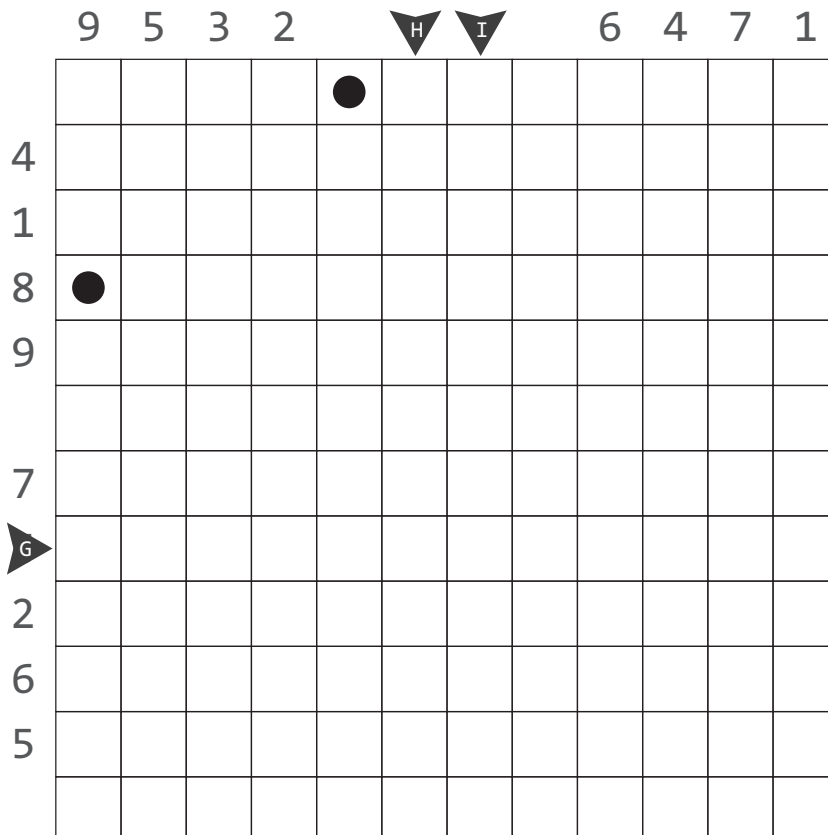
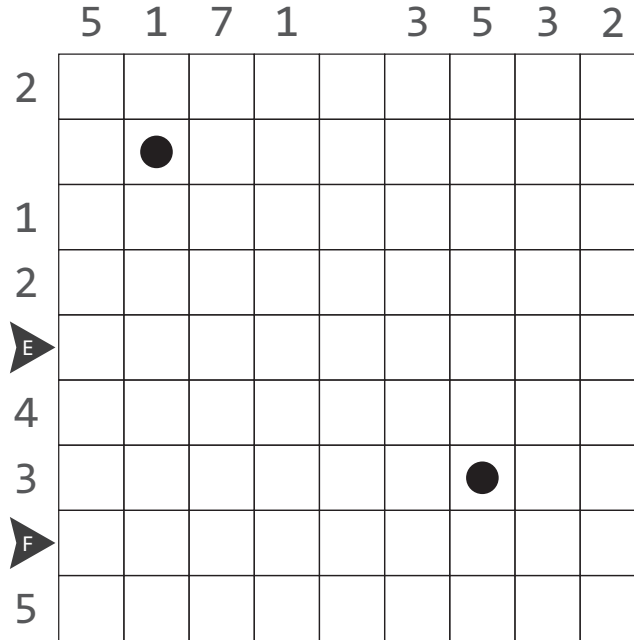
3



# Toroidal Snake

6 + 10 points

Refer to previous page for rules.

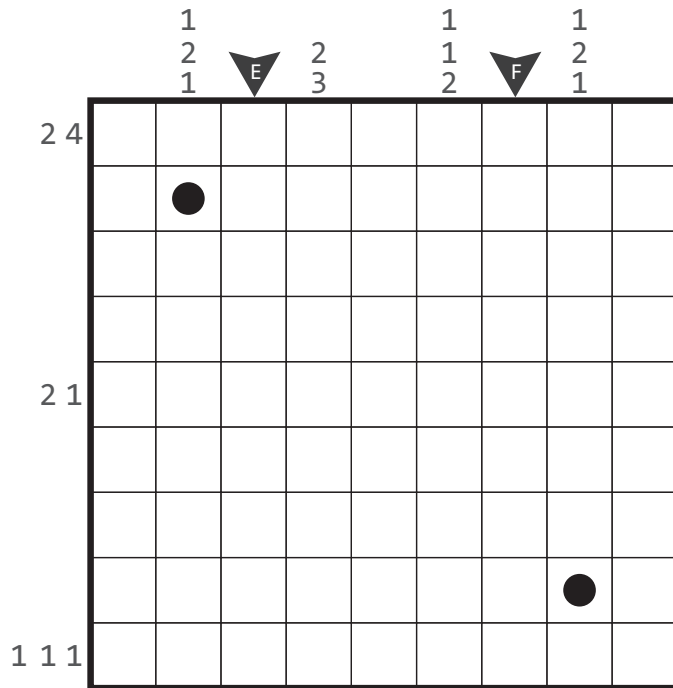
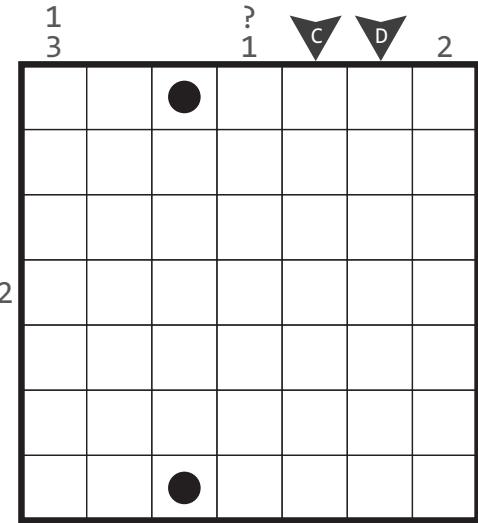
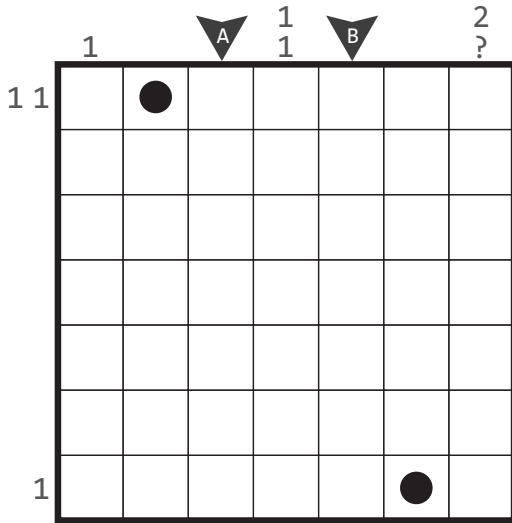


# Graffiti Snake

2 + 1 + 2 points

- Paint some cells black to create walls.
- Numbers outside the grid indicate the lengths of blackened cell blocks in the corresponding directions, in order.
- If there is more than one blackened block in a row or column, there must be at least one white cell between the blocks.
- After all black cells are determined; a snake should travel through all the unoccupied cells, moving horizontally or vertically without touching itself, even diagonally.
- The head and the tail of the snake are given in circles.
- The clue “?” can be replaced by a number greater than zero.

Answer key:



**Graffiti Snake**

**6 points**

|       |  |  |   |  |  |  |   |  |  |  |  |
|-------|--|--|---|--|--|--|---|--|--|--|--|
|       |  |  |   |  |  |  |   |  |  |  |  |
|       |  |  |   |  |  |  |   |  |  |  |  |
| 1 6   |  |  |   |  |  |  |   |  |  |  |  |
|       |  |  |   |  |  |  |   |  |  |  |  |
| 1 4 1 |  |  | ● |  |  |  |   |  |  |  |  |
|       |  |  |   |  |  |  |   |  |  |  |  |
| 3 2 1 |  |  |   |  |  |  | ● |  |  |  |  |
|       |  |  |   |  |  |  |   |  |  |  |  |
| 2 1 3 |  |  |   |  |  |  |   |  |  |  |  |
|       |  |  |   |  |  |  |   |  |  |  |  |

9

▼ G

1  
1  
1  
1

▼ H

1  
1  
5

▼ I

1  
1

◀ 4

**False Graffiti**

**3 points**

- Apply Graffiti Snake rules, except that all clues outside the grid are false.
- They are either 1 less or 1 more than the actual clues
- Note that 1 can become 0 too.

Answer key:

|       |   |  |  |  |  |   |
|-------|---|--|--|--|--|---|
|       |   |  |  |  |  |   |
|       |   |  |  |  |  |   |
| 4 0   | ● |  |  |  |  |   |
|       |   |  |  |  |  |   |
| 2 2   |   |  |  |  |  |   |
|       |   |  |  |  |  |   |
| 1 0 2 |   |  |  |  |  | ● |
|       |   |  |  |  |  |   |

3  
3

▼ B

5  
1

▶ A

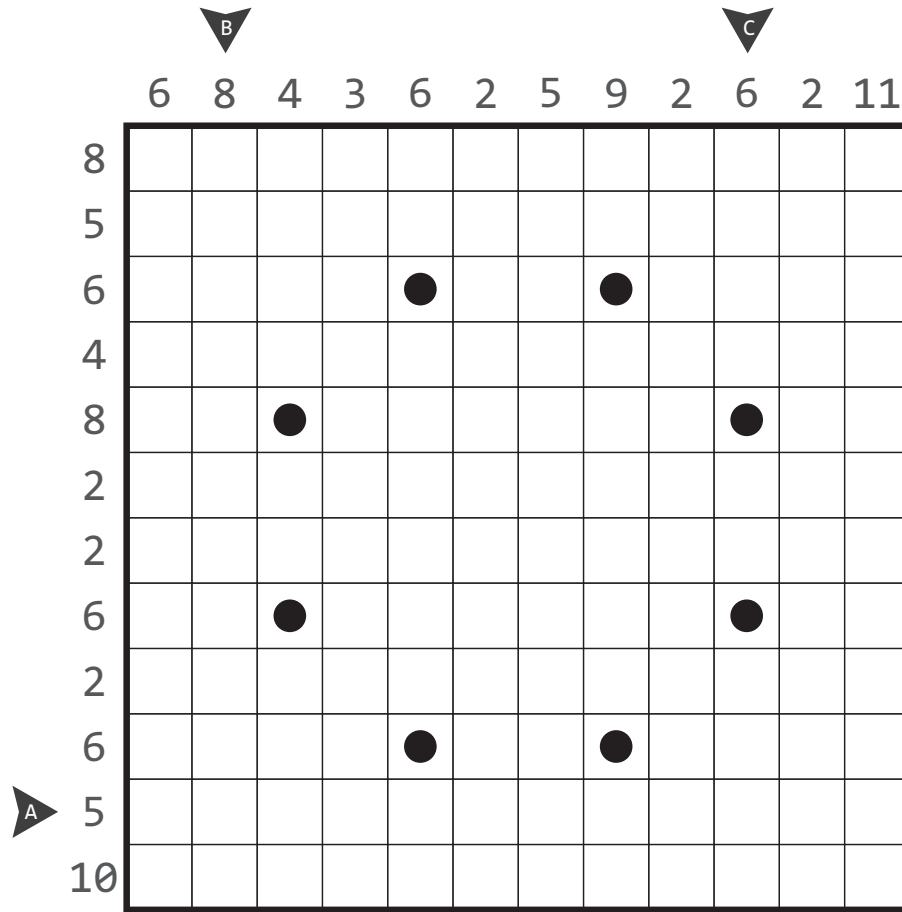


# Multiple Snakes

9 points

- Apply standard Snake rules; however multiple snakes are there in the grid.
- Head and tail of all snakes are given.
- Different snakes cannot touch each other, even diagonally.

Answer key:



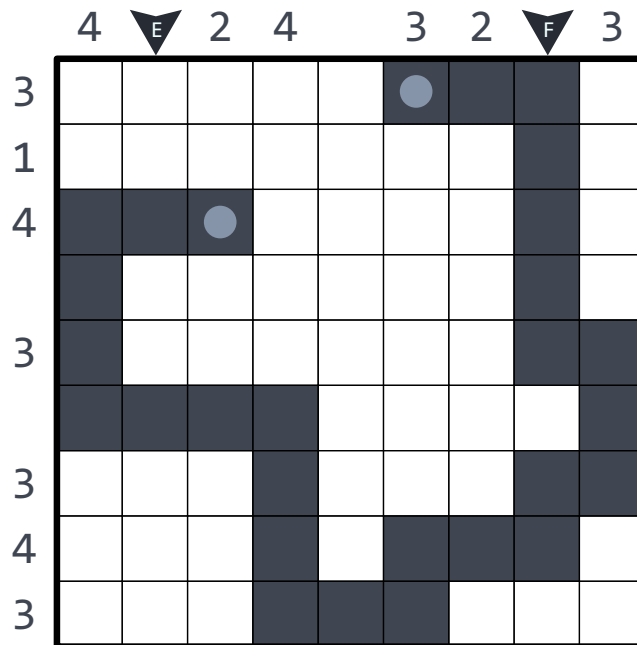
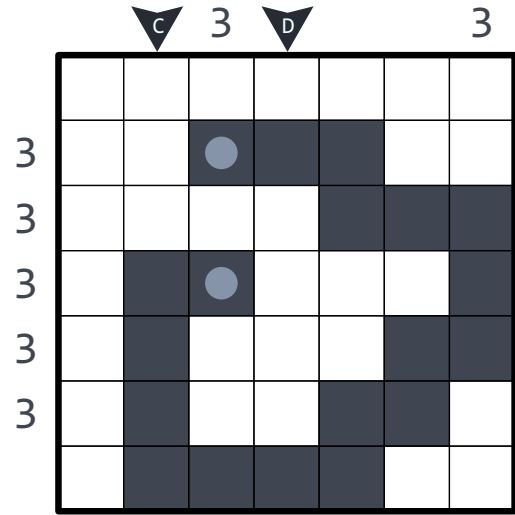
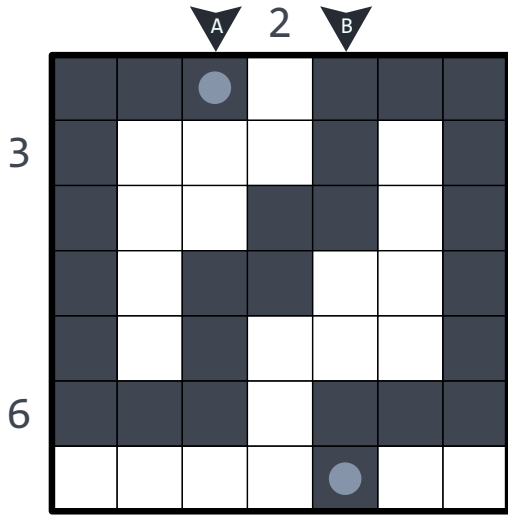
End of Test

**Snake**

**1 + 2 + 3 points**

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers outside the grid indicate the number of snake cells in that row/column.

Answer key:



# Snake

7 points

Refer to previous page for rules.

|   |   |   |   |   |     |   |     |   |   |   |   |    |
|---|---|---|---|---|-----|---|-----|---|---|---|---|----|
|   |   | 3 |   | 2 | ▼ H | 3 | ▼ I | 1 |   | 7 |   | 11 |
| 3 |   |   |   |   |     |   |     |   |   | ● |   |    |
| 7 | ■ | ■ | ■ |   | ■   | ■ | ■   |   |   |   |   | ■  |
| 8 | ■ |   | ■ |   | ■   |   | ■   | ■ | ■ |   | ■ | ■  |
|   | ■ |   | ■ |   | ■   | ■ | ■   |   | ■ |   | ■ | ■  |
|   | ■ |   | ■ |   | ■   | ■ | ■   |   | ■ |   | ■ | ■  |
|   | ■ |   | ■ |   | ■   | ■ | ■   |   | ■ |   | ■ | ■  |
|   | ■ |   | ■ |   | ■   | ■ | ■   |   | ■ |   | ■ | ■  |
|   | ■ |   | ■ |   | ■   | ■ | ■   |   | ■ |   | ■ | ■  |
|   | ■ |   | ■ |   | ■   | ■ | ■   |   | ■ |   | ■ | ■  |
| 7 |   | ■ | ■ |   | ■   | ■ | ■   |   |   | ■ |   | ■  |
| 3 |   |   | ■ |   |     |   |     |   |   | ■ |   | ■  |
| 4 |   |   | ● |   |     |   |     |   |   | ■ | ■ | ■  |

▶ 4

# Horse Snake

2 + 5 points

- Apply Standard Snake rules.
- The numbers inside the grid indicate the number of snake parts in the knight step from the clue indicated.
- The clue “?” can be replaced by a number greater than zero.
- The cells with cross cannot be a part of the snake

Answer key:

|   |   |     |   |     |   |   |   |
|---|---|-----|---|-----|---|---|---|
|   |   | ▼ A |   | ▼ B |   |   | ● |
| 2 | ■ |     |   |     |   | 3 |   |
|   | ■ | ■   | ■ | ■   |   |   |   |
| 3 |   |     | 5 | ■   | ■ |   | 2 |
| ■ | ■ | ■   |   |     | ■ | ■ |   |
| ■ | 1 |     |   | ■   | ■ |   | 2 |
| ● |   | ■   | ■ | ■   |   |   |   |

▶

|   |   |   |     |   |     |   |   |
|---|---|---|-----|---|-----|---|---|
|   |   |   | ▼ C |   | ▼ D |   |   |
|   |   |   | ●   | ■ | ■   |   |   |
|   |   |   |     |   |     |   |   |
|   | 1 | ■ | ■   | ■ |     | 2 |   |
| ■ | ■ | ■ |     | ■ | ■   | ■ |   |
| ■ | 3 |   |     |   |     | 2 |   |
| ■ |   |   |     |   |     |   |   |
| ■ | ■ | ■ | ■   | ■ |     |   | ● |

# Horse Snake

6 + 10 points

Refer to previous page for rules.

|   |  |   |   |  |   |   |  |   |
|---|--|---|---|--|---|---|--|---|
|   |  |   |   |  |   |   |  |   |
| ● |  | 2 |   |  |   |   |  | 1 |
|   |  |   |   |  | X |   |  |   |
|   |  |   | 2 |  |   | 3 |  |   |
|   |  |   |   |  | 5 |   |  |   |
|   |  |   |   |  |   |   |  |   |
|   |  |   | 2 |  |   |   |  |   |
|   |  | ? |   |  | 5 |   |  |   |
|   |  |   | X |  |   |   |  |   |
| 0 |  |   |   |  |   | 3 |  | ● |

|   |  |   |   |   |   |  |   |   |   |
|---|--|---|---|---|---|--|---|---|---|
|   |  |   |   |   |   |  |   |   |   |
| X |  |   |   | 2 |   |  |   | 2 | X |
|   |  |   |   |   |   |  |   |   |   |
|   |  | 6 |   |   | X |  |   |   |   |
|   |  |   |   |   |   |  | 1 |   | 2 |
| 1 |  |   |   |   |   |  | ● |   |   |
|   |  |   |   |   | 5 |  |   |   |   |
|   |  |   |   | 1 |   |  |   |   |   |
|   |  |   |   | ● |   |  |   |   | 0 |
| 3 |  |   | 5 |   |   |  |   |   |   |
|   |  |   |   |   | X |  |   | 7 |   |
|   |  |   |   |   |   |  |   |   |   |
| X |  |   | 1 |   |   |  | 0 |   | X |

# Summed Snake

3 + 4 + 6 points

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers starting 1 are put along the path of the snake.
- Numbers outside the grid indicate the sum of all the snake parts in particular row and column.

Answer key:

|     |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|
|     | 42 |    |    |    | 47 |    |    |
| 18  |    | 3  | 4  | 5  | 6  |    |    |
|     | 1  | 2  |    |    | 7  | 8  | 9  |
| 10  |    |    |    |    |    |    | 10 |
|     | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
| 18  | 18 |    |    |    |    |    |    |
|     | 19 |    | 23 | 24 | 25 |    | 29 |
| 144 | 20 | 21 | 22 |    | 26 | 27 | 28 |

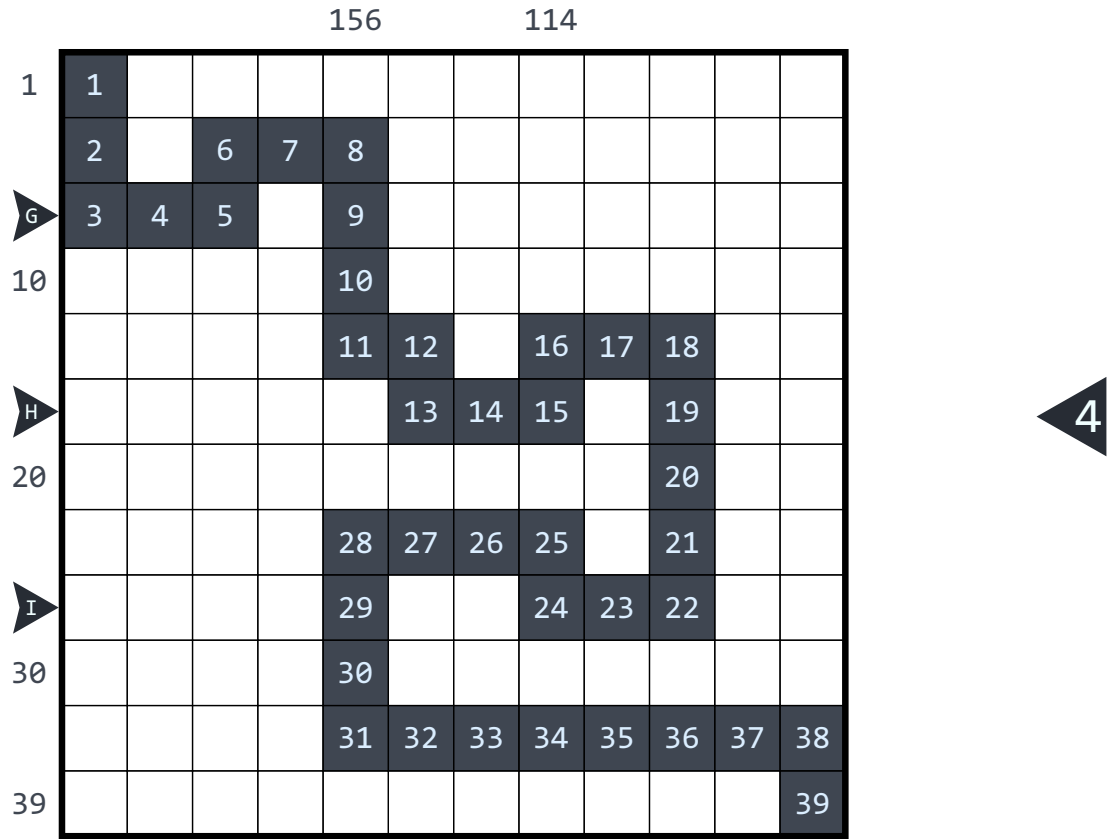
|    |    |    |    |    |     |    |     |
|----|----|----|----|----|-----|----|-----|
|    | 35 | 37 | 19 |    | 125 | 64 | 112 |
| 5  | 4  | 3  |    | 25 | 26  | 27 |     |
| 6  |    | 2  |    | 24 |     | 28 |     |
| 7  |    | 1  |    | 23 |     |    |     |
| 71 | 8  |    |    | 22 | 21  | 20 |     |
|    | 9  | 10 |    |    |     |    | 19  |
|    |    | 11 |    |    |     |    | 18  |
|    |    | 12 | 13 | 14 | 15  | 16 | 17  |

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
|    | 22 |    | 46 |    | 63 |    |    |    |
| 54 |    |    |    |    |    | 17 | 18 | 19 |
|    | 4  | 3  | 2  |    |    | 15 | 16 | 20 |
|    | 5  |    | 1  |    | 13 | 14 |    | 21 |
| 63 | 6  |    |    |    | 12 |    |    | 23 |
|    | 7  | 8  | 9  | 10 | 11 |    | 25 | 24 |
| 26 |    |    |    |    |    |    | 26 |    |
|    |    | 40 | 41 |    |    |    | 27 | 28 |
|    |    | 39 |    |    |    |    |    | 30 |
|    |    | 38 | 37 | 36 | 35 | 34 | 33 | 32 |
|    |    |    |    |    |    |    |    | 31 |

# Summed Snake

5 points

Refer to previous page for rules.

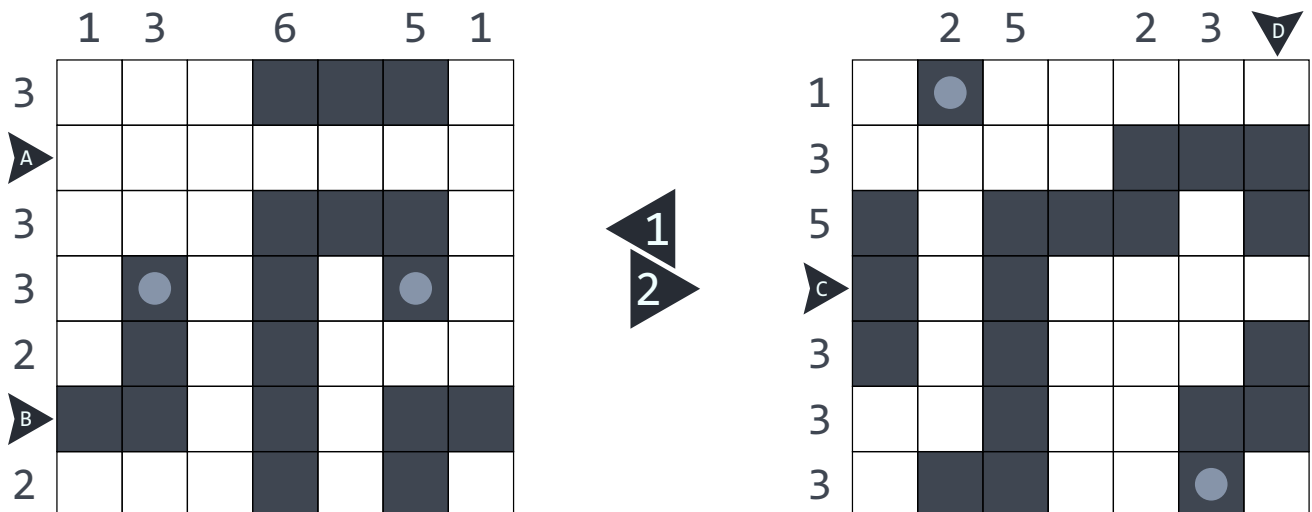


# Toroidal Snake

4 + 3 points

- Apply Standard Snake rules.
- Additionally, the grid wraps around itself. So the snake can go from one edge to another.

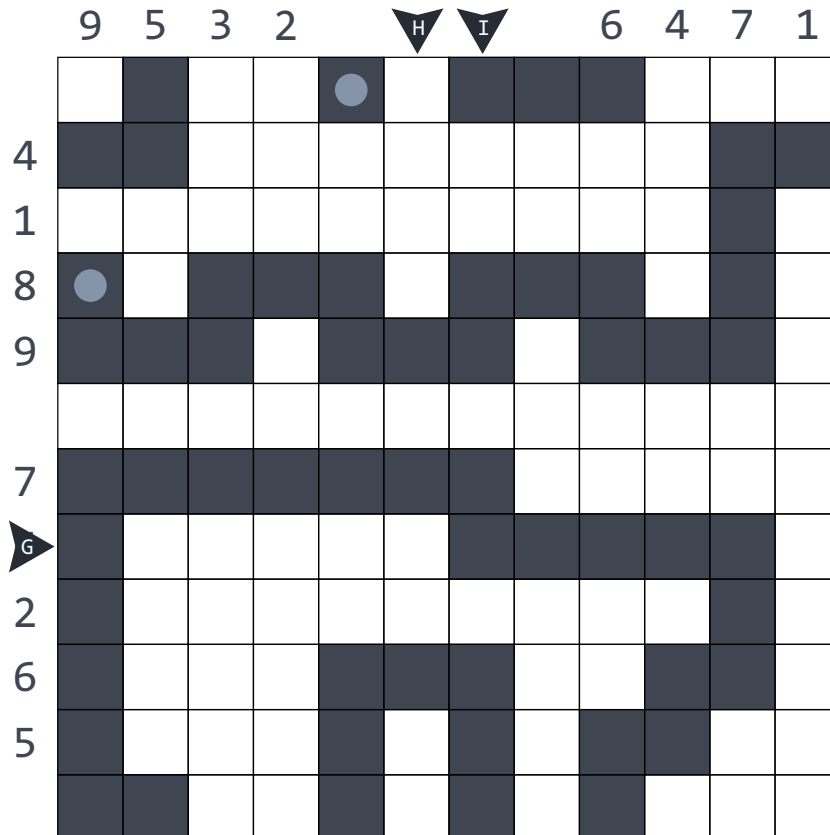
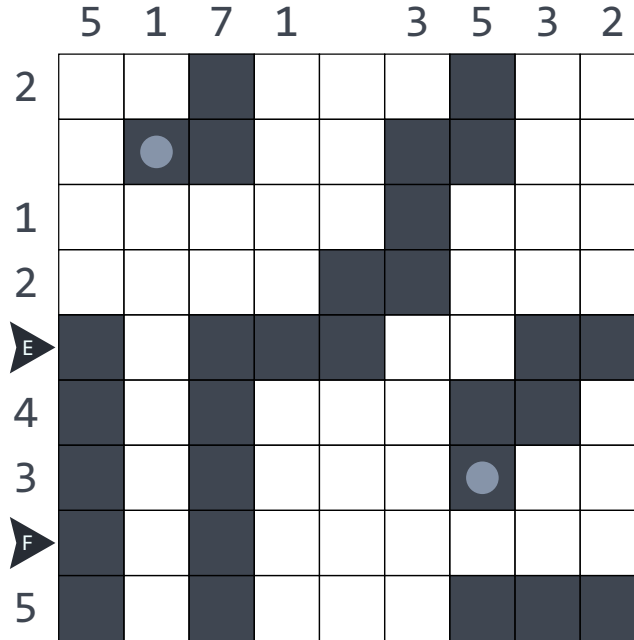
Answer key:



**Toroidal Snake**

**6 + 10 points**

Refer to previous page for rules.

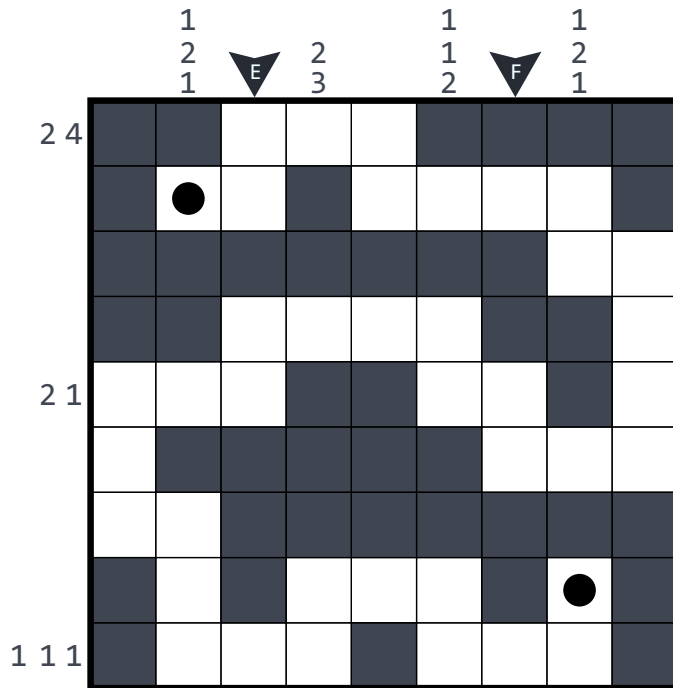
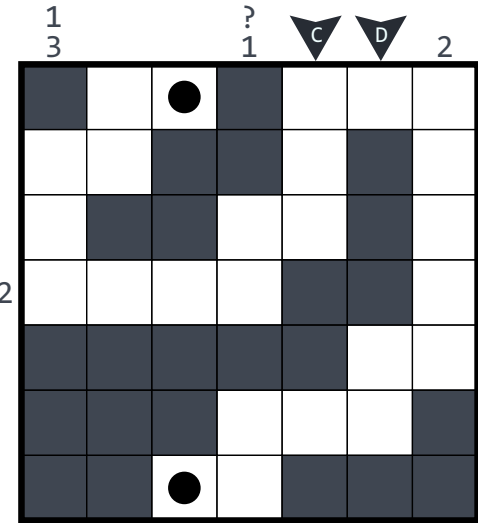
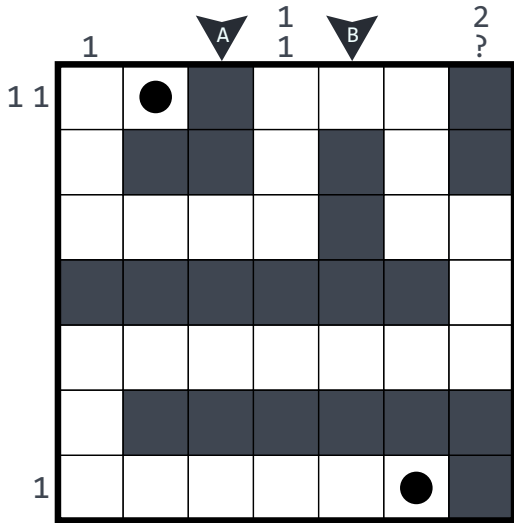


# Graffiti Snake

2 + 1 + 2 points

- Paint some cells black to create walls.
- Numbers outside the grid indicate the lengths of blackened cell blocks in the corresponding directions, in order.
- If there is more than one blackened block in a row or column, there must be at least one white cell between the blocks.
- After all black cells are determined; a snake should travel through all the unoccupied cells, moving horizontally or vertically without touching itself, even diagonally.
- The head and the tail of the snake are given in circles.
- The clue “?” can be replaced by a number greater than zero.

Answer key:





**Graffiti Snake**

**6 points**

|       |   |   |   |   |  |  |   |  |   |   |
|-------|---|---|---|---|--|--|---|--|---|---|
|       |   |   | 1 |   |  |  | 1 |  |   |   |
|       |   |   | 1 |   |  |  | 1 |  |   |   |
|       |   |   | 1 |   |  |  | 5 |  |   |   |
| 9     | ▼ | G |   |   |  |  |   |  | ▼ | H |
|       |   |   |   |   |  |  |   |  | ▼ | I |
|       |   |   |   |   |  |  |   |  |   | 1 |
|       |   |   |   |   |  |  |   |  |   | 1 |
| 1 6   |   |   |   |   |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |
| 1 4 1 |   |   |   | ● |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |
| 3 2 1 |   |   |   |   |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |
| 2 1 3 |   |   |   |   |  |  |   |  |   |   |
|       |   |   |   |   |  |  |   |  |   |   |

◀ 4

**False Graffiti**

**3 points**

- Apply Graffiti Snake rules, except that all clues outside the grid are false.
- They are either 1 less or 1 more than the actual clues
- Note that 1 can become 0 too.

Answer key:

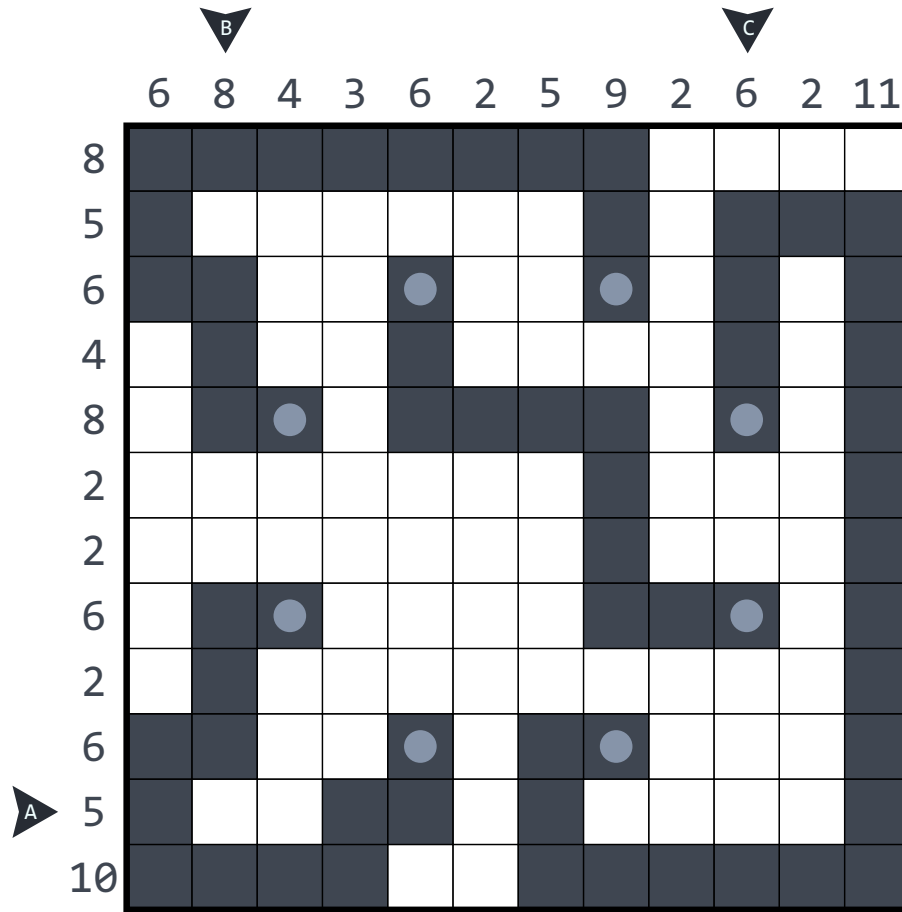
|       |   |   |   |  |  |   |
|-------|---|---|---|--|--|---|
|       |   |   | 3 |  |  | 5 |
|       |   |   | 3 |  |  | 1 |
|       |   |   |   |  |  |   |
| 4 0   | ● |   |   |  |  |   |
|       |   |   |   |  |  |   |
| 2 2   |   |   |   |  |  |   |
|       | ▶ | A |   |  |  |   |
| 1 0 2 |   |   |   |  |  | ● |
|       |   |   |   |  |  |   |

# Multiple Snakes

9 points

- Apply standard Snake rules; however multiple snakes are there in the grid.
- Head and tail of all snakes are given.
- Different snakes cannot touch each other, even diagonally.

Answer key:



End of Test