

# CAIRO PENTAGONAL KUROTTO

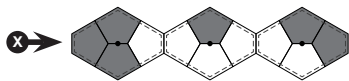
Standard Kurotto Rules. Shade some cells such that:

1. Each circled number in a cell denotes the total count of shaded cells in connected groups sharing an edge with that cell.
2. Cells with circles cannot be shaded.
3. Ignore black dots and dashed lines when solving.

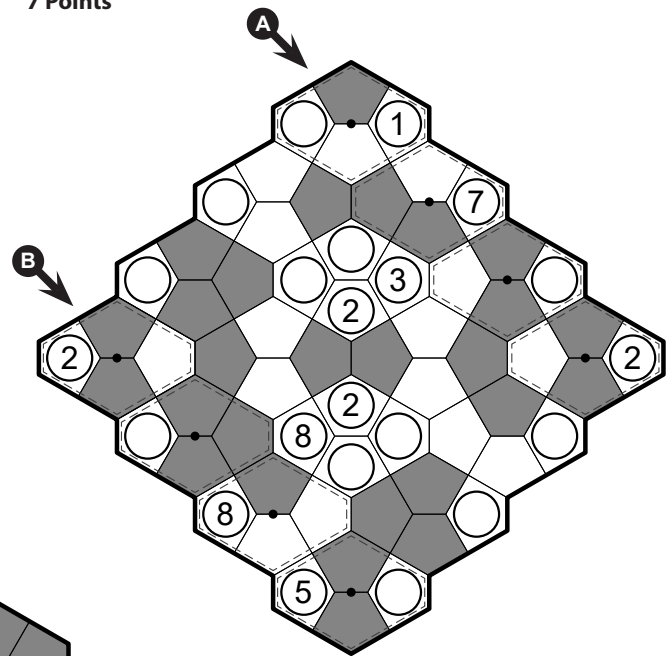
## Answer String

In the line of cells indicated by an arrow, there are clusters of four cells joined by an inset hexagon of dashed lines and a black dot at the center. Report the number of shaded cells in each cluster.

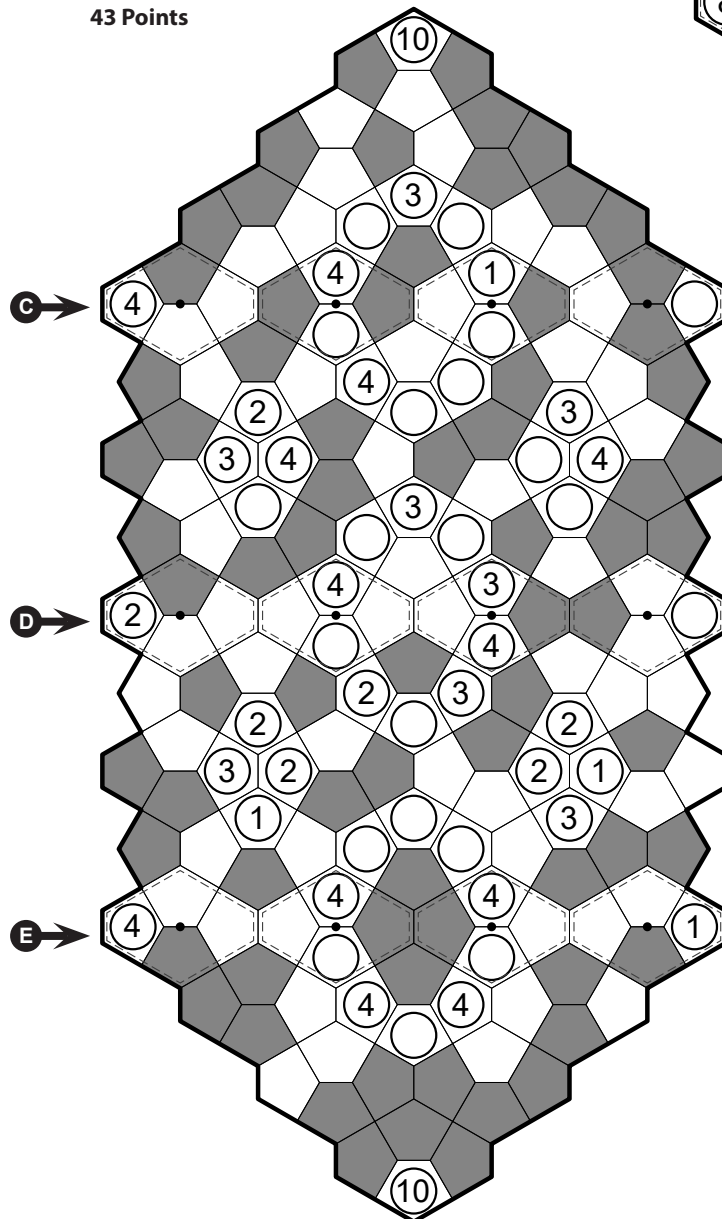
The answer string for the example fragment below: 312



**Cairo Pentagonal Kurotto 1**  
7 Points



**Cairo Pentagonal Kurotto 2**  
43 Points



# SUM STAR

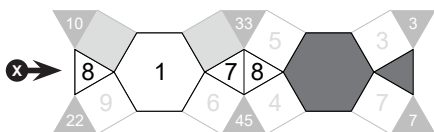
Fill cells with numbers and shade all remaining cells such that:

1. Each dodecagon contains the numbers 1-9 exactly once.
2. Numbers in cells sharing a vertex with a black triangle add up to the indicated clue number without repeats.
3. A shaded cell cannot share an edge with another shaded cell.

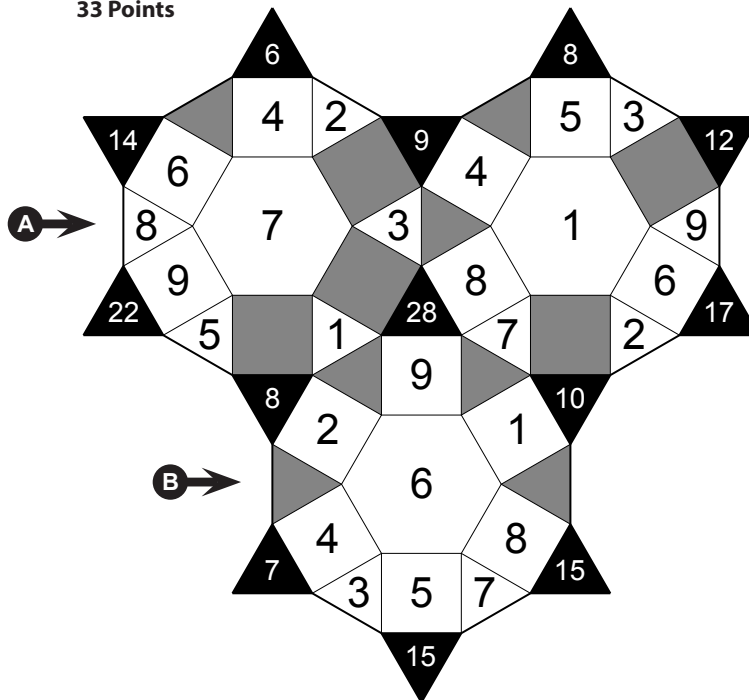
## Answer String

Enter the digits in the marked central rows (triangle, hexagon, triangle, ...). Use a capital X for shaded cells.

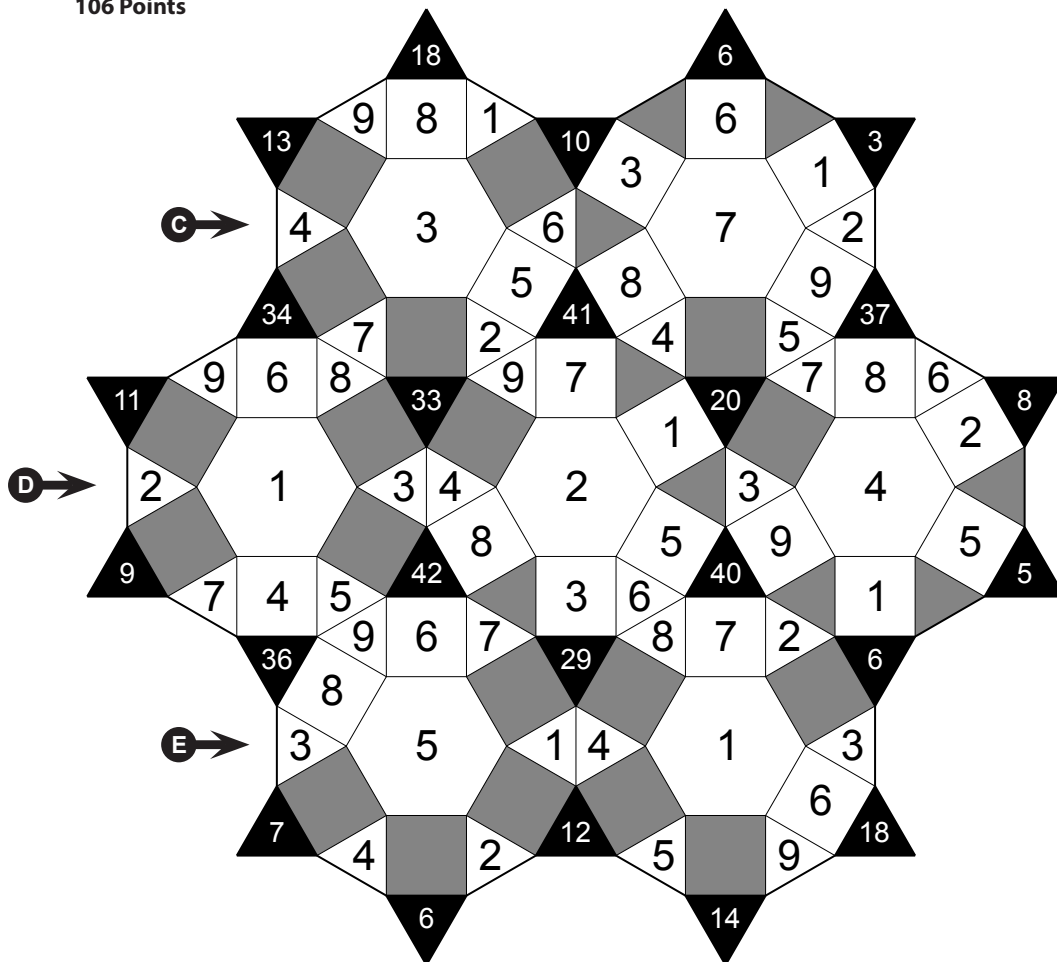
The answer string for the example fragment below: 8178XX



**Sum Star 1**  
33 Points



**Sum Star 2**  
106 Points



# KROPKI SWITCH

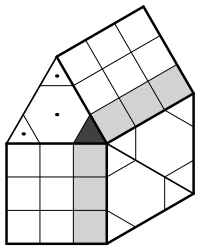
- Place the numbers 1-9 so that they appear exactly once in each 3x3 block of square cells.
- Standard Kropki rules apply to borders between square cells:
  - A black dot on the border between two square cells indicates that the ratio of those cells is exactly 2. A white dot on the border between two square cells indicates that the difference between those cells is exactly 1. A border between two square cells with no dot indicates that neither of these properties applies. (The border between "1" and "2" could have either a black or a white dot.)
- Between the 3x3 blocks of square cells are switches, which consist of 3 triangles and 1 hexagon. One and only one cell from each switch must be shaded. Shaded cells cannot share an edge.
- A switch relates triplets from different 3x3 blocks in the following three possible combinations: one triangle, one hexagon, or two triangles. If the switch cell (or one of the two cells in the case of two triangles) is shaded, both triplets must contain the same three numbers. If the cell (or both cells in the case of two triangles) is unshaded, the two triplets cannot contain any of the same numbers.
- If a switch cell containing a number is shaded, any triplets related to that cell must contain that number. If the cell is unshaded, any triplets related to that cell must not contain that number. In the case of two triangles, this rule applies with either triangle to both triplets.
- Ignore letters and arrows while solving.

## Answer String

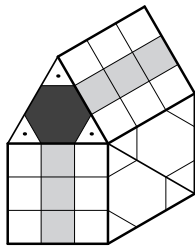
Starting at each cell with a letter and an arrow, report the contents of the 3x3 block from left to right, top to bottom.

The answer string for the example fragment to the right: 941678325

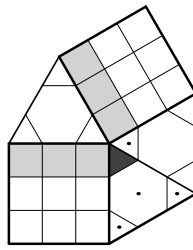
9	4	1
6	7	8
3	2	5



ONE TRIANGLE

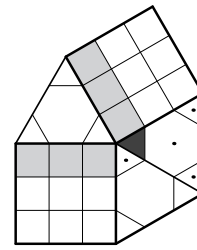


ONE HEXAGON



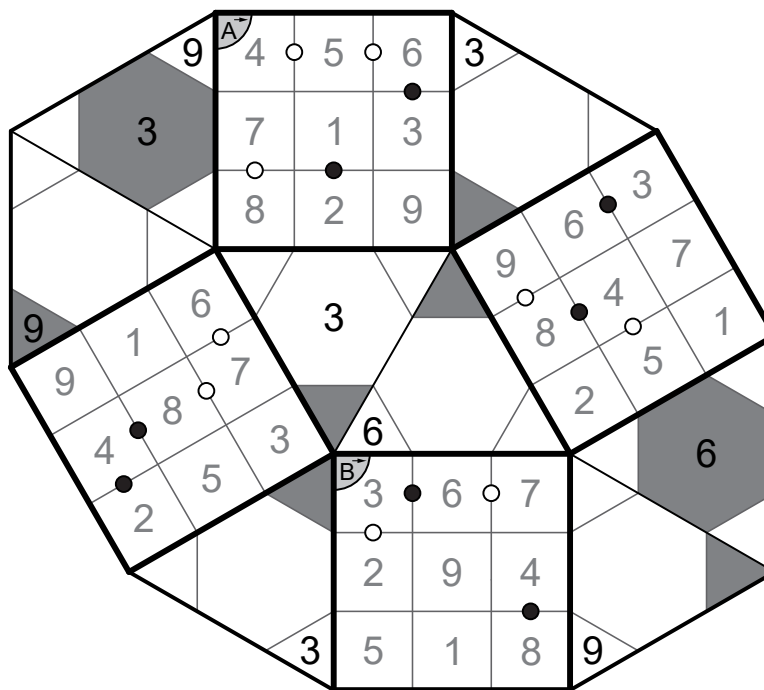
TWO TRIANGLES

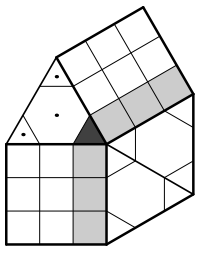
OR



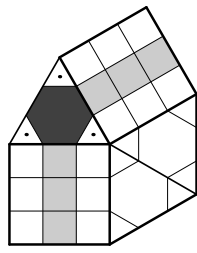
## Kropki Switch 1

35 Points

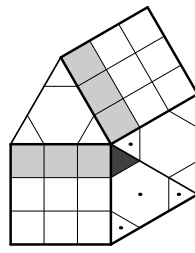




ONE TRIANGLE

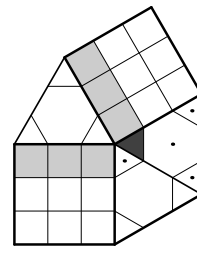


ONE HEXAGON

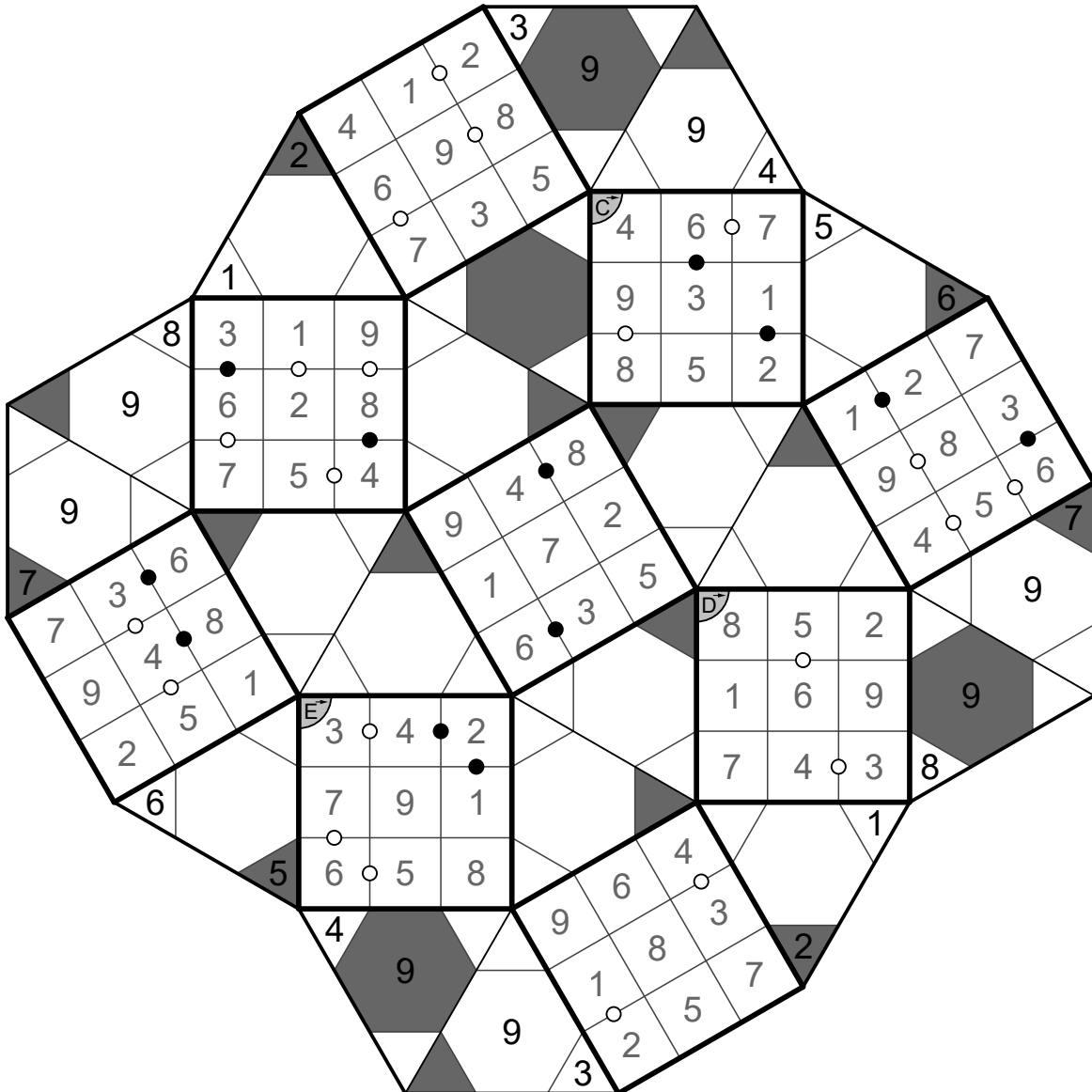


TWO TRIANGLES

OR



**Kropki Switch 2**  
80 Points



# KARST

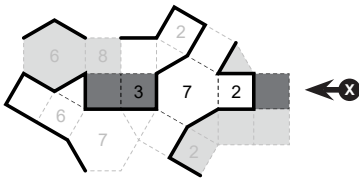
Variant of Cave:

1. Draw a single loop along the dashed lines that encloses some cells. Edges of this loop may not cross or share a vertex.
2. Numbers indicate the number of connected cells from all lines of sight radiating from that cell, including the cell itself. Numbers can be inside or outside of the loop. Lines of sight end on either the edge of the grid, the edge of the loop, or at a triangular cell, counting that cell.

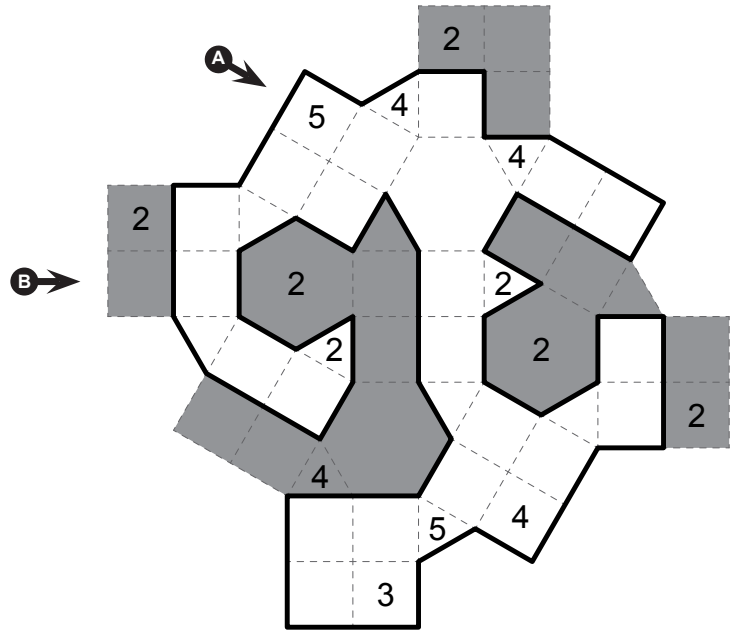
### Answer String

For the indicated range of cells starting at the arrow and ending in a triangular cell, write the consecutive lengths of groups of cells connected either inside or outside the loop.

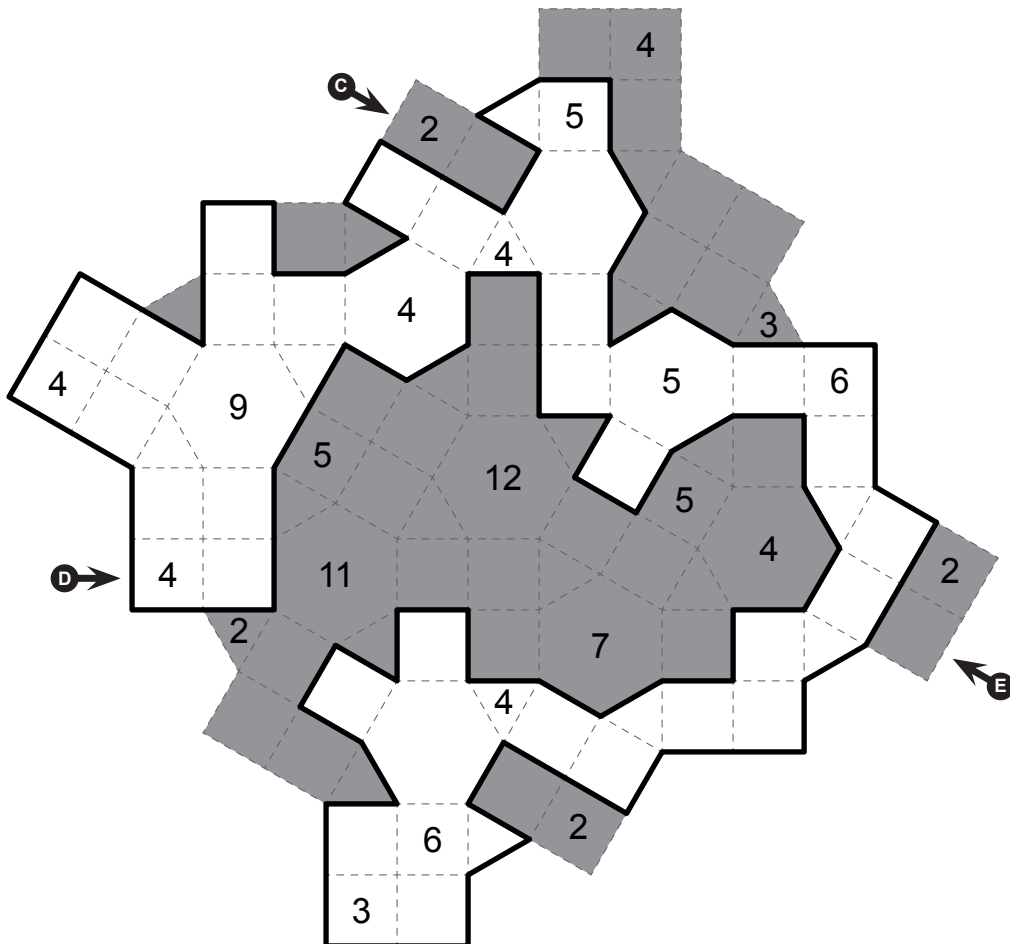
The answer string for the example fragment below: 1221



### Karst 1 16 Points



### Karst 2 33 Points



# HEXAGONAL KUROCURON

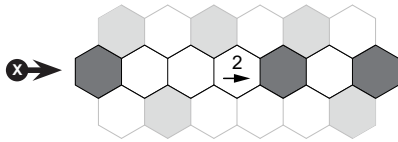
Shade some cells such that:

1. Bold-outlined regions contain exactly two shapes, made up of contiguous groups of 1 or more shaded cells. Within a region, the two shapes must be congruent, allowing reflection and rotation.
2. A shape cannot share an edge with another shape, even across thick borders.
3. Cells with arrows, which cannot be shaded, point to a neighboring cell, which must be shaded and part of a shape consisting of the given number of cells.

## Answer String

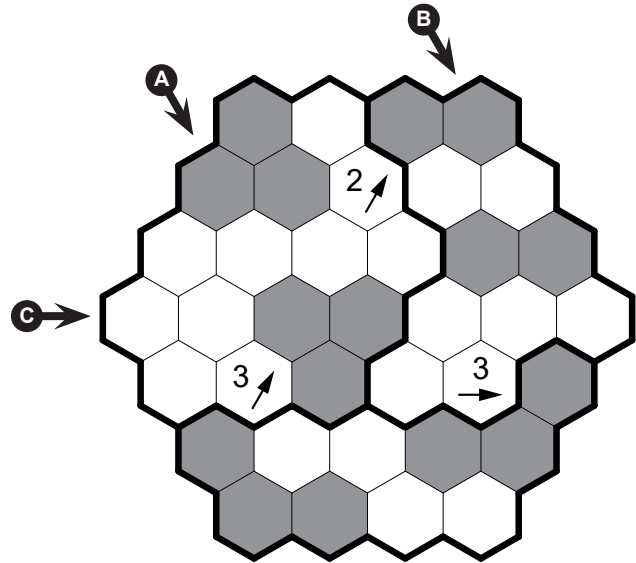
Report the lengths of connected groups of shaded and unshaded cells. Cells with arrows count as unshaded.

The answer string for the example fragment below: 13111



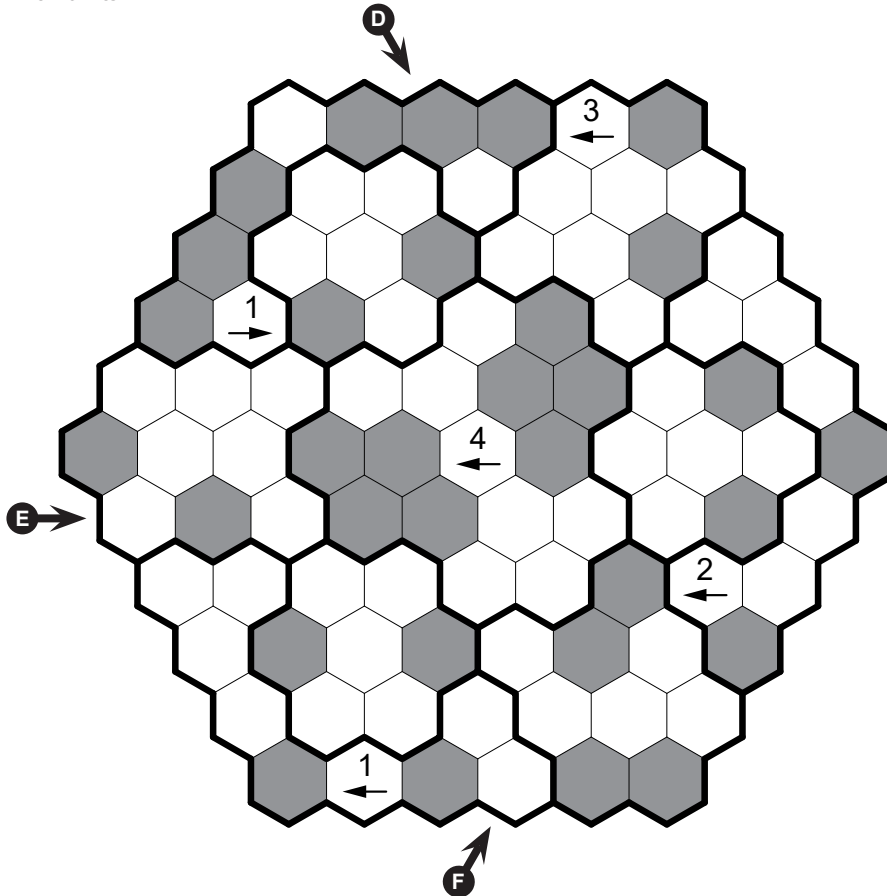
## Hexagonal Kurokuron 1

5 Points



## Hexagonal Kurokuron 2

6 Points



# RHOMBILE TRANSPARENT TAPA LOOP

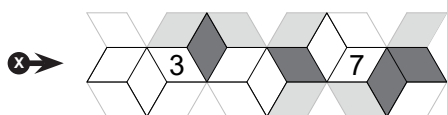
Shade some cells such that:

1. For any cell with one or more numerical clues, shaded cells form connected groups of the indicated size within the group of cells sharing a vertex with the clued cell. Cells with clues **can** be shaded. Clues within shaded cells remain valid.
2. For every vertex touching exactly 3 cells, at least one cell must be unshaded.
3. Shaded cells must form a single loop.

## Answer String

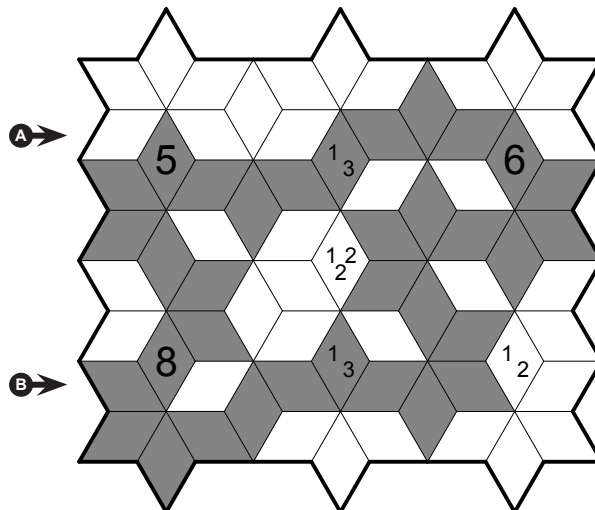
For each line of cells indicated by an arrow, report the lengths of connected groups of cells, shaded or unshaded.

The answer string for the example fragment below: 312122



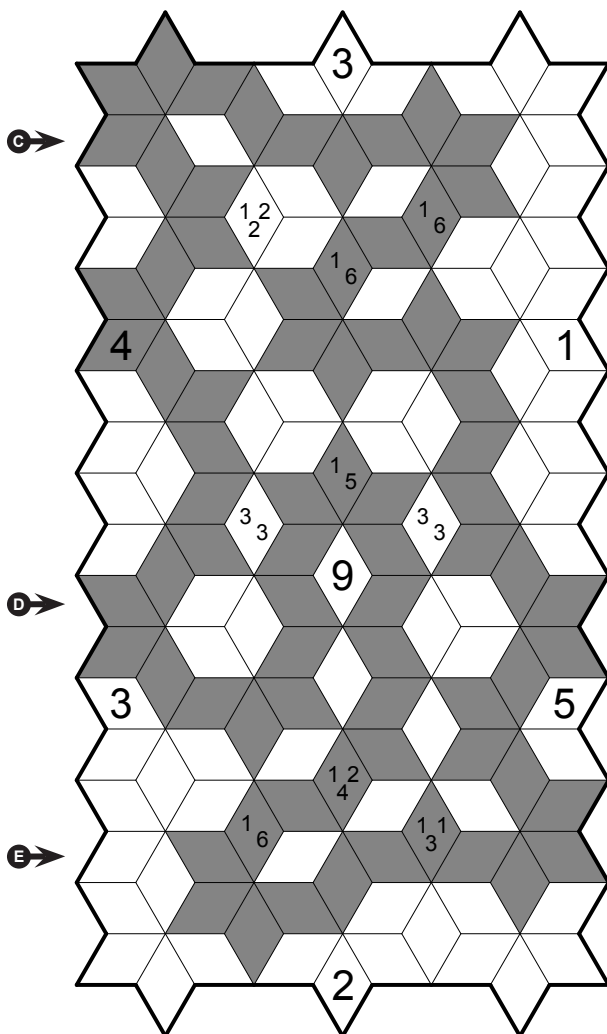
## Rhombile Transparent Tapa Loop 1

17 Points



## Rhombile Transparent Tapa Loop 2

28 Points



# OMNI-YAJILIN

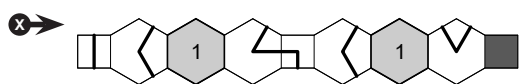
Shade some cells and draw a loop in remaining cells such that:

1. Every empty cell is either shaded or part of a single loop that does not branch or intersect.
2. Numbers in some cells indicate the total number of shaded cells that can be seen in all directions from that cell. Lines of sight run perpendicular to the edges of a cell and terminate on the edge of the grid or at a triangular cell, counting that cell.
3. Shaded cells cannot share an edge.

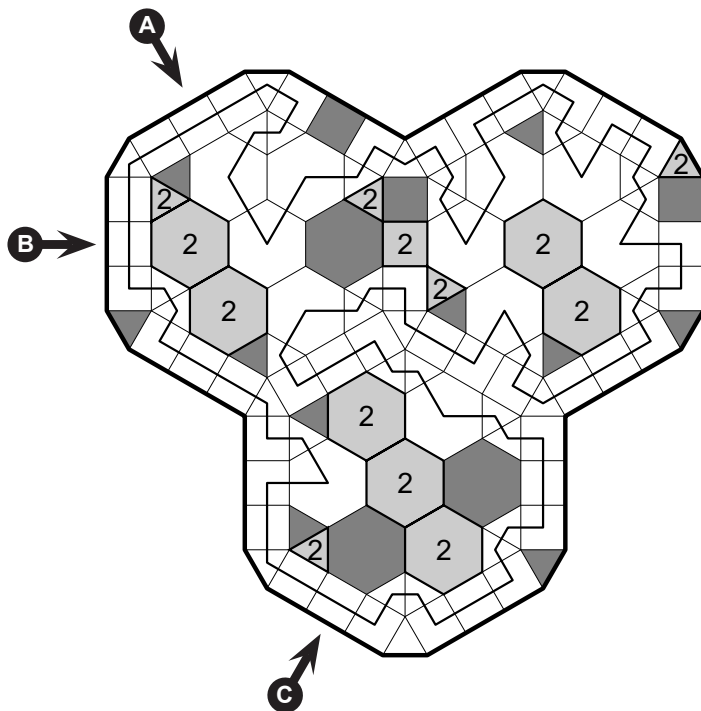
## Answer String

In each line of cells indicated by an arrow, report the number of cells in which the loop turns. If the number is 10 or greater, report only the last digit.

The answer string for the example fragment below: 5



## Omni-Yajilin 1 31 Points



## Omni-Yajilin 2 60 Points

