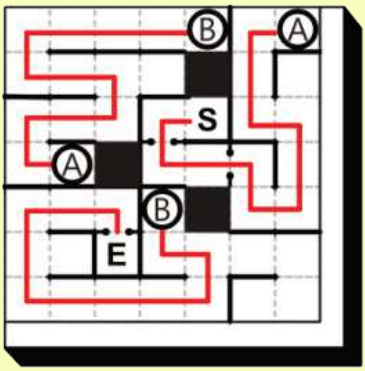
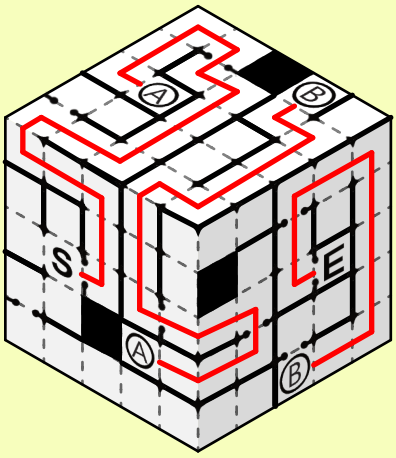
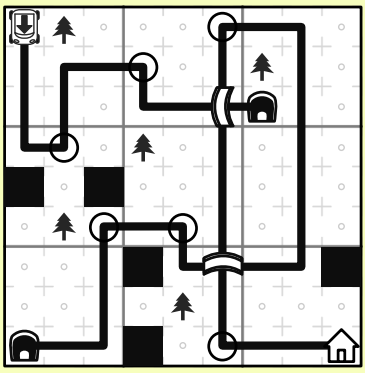
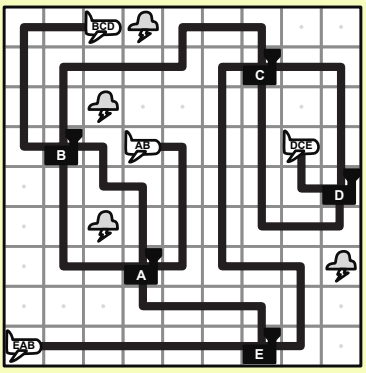
SUNOME™

A SAMPLING OF PUZZLES









30 HANDCRAFTED PUZZLES

BY ADAM BONTRAGER

A SAMPLING OF PUZZLES

This PDF contains puzzles from Sunome Books 1, 2, and 3, Kartoodle, and Skyways.

If you find these puzzles interesting, you can find out more at **www.sunomepuzzles.com**

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ABOUT SUNOME PUZZLES

The main challenge of a Sunome (sū•noh•meh) puzzle is drawing the maze. Numbers surrounding the outside of the maze border give an indication of how the maze is to be constructed.

To solve the puzzle you must draw all the walls where they belong and then draw a path from the **S**tart square to the **E**nd square.

PARTS of the **PUZZLE**

START and END SQUARES

These are where the maze path **S**tarts and **E**nds.

PUZZLE NUMBER

Used to reference the solution.

PUZZLE BORDER

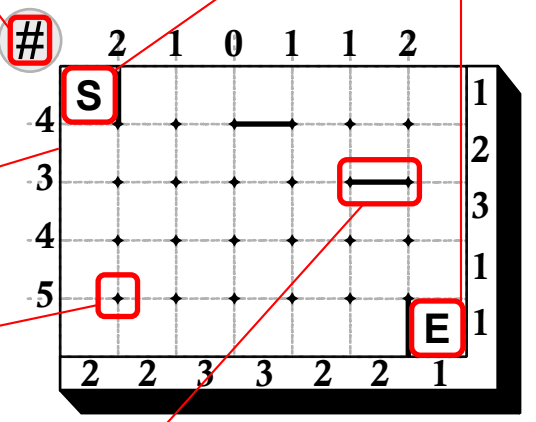
Border surrounding the puzzle.

NODE

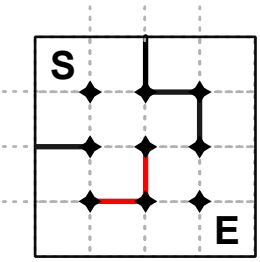
Walls are attached to these. All Nodes **must** have a wall attached to them.

STARTING WALLS

Preplaced walls to help you get started.

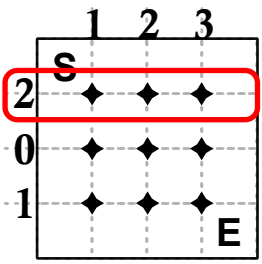


DRAWING the MAZE



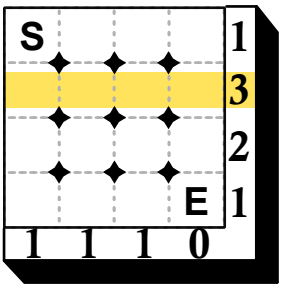
The walls of the maze are to be drawn on the dotted lines inside the border. A single wall exists either between 2 Nodes or a Node and the border.
In the puzzle to the right, **the black walls are legal because they can be traced back to the border where as the red walls are not legal because they cannot be traced back to the border.**

NUMBERS - TOP and LEFT



The numbers on the Top and Left side of the border tell you how many walls are on that **line** of the grid. In the puzzle to the right, the enclosed section (encircled in red) indicates that there are 2 walls present on that dotted line. These walls do not necessarily need to be adjacent to each other.

NUMBERS - RIGHT and BOTTOM



The numbers on the Right and Bottom of the border tell you how many walls exist in those **rows and columns**, respectively. In the puzzle to the right, the highlighted row indicates that there are 3 walls present in that row. These walls do not necessarily need to be adjacent to each other. The numbers along the bottom indicate the number of walls in their respective columns.

PITS ■

Pits are empty areas within the gridded space that cannot contain walls and are **considered borders.**

Pits are not walls.

Maze Paths cannot pass through a Pit.

PORTALS Ⓐ|Ⓐ

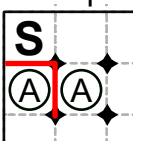
A Portal is represented as a circle with a letter inside of it.

Portals connect two squares of the maze.

Two Portals with the same letter **must be completely inaccessible from each other except by using the Portals.** All squares are still accessible through the use of the Portals.

If a Portal is adjacent to another Portal, or the **S**tart or **E**nd, there **must** be a wall between them.

Example



When drawing the Maze Path, if the Path enters a Portal, it is continued from the other Portal with the matching letter. Portals are completed in alphabetical order.

S → Ⓐ → Ⓐ → Ⓑ → Ⓑ → ...E

PASSAGES

Passages are a new type of clue and are represented by two small rectangles attached to circles where Nodes exist.

Passages indicate where **no wall may be present.**

Passages are attached to Nodes. Those Nodes still need walls attached to them.

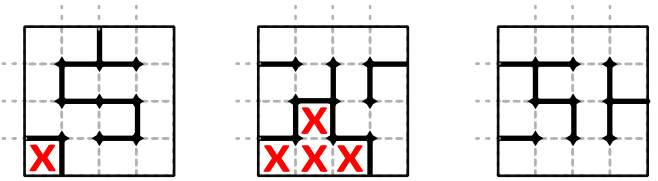
A Passage does not always indicate where a Maze Path may pass through.

RULES

- Each puzzle has a unique solution.
- There is only **1 maze path** to the **E**nd square.
- Every Node **must** have a wall touching it.
- Walls **must** trace back to a border.
- If the **S**tart, **E**nd, or **Portal** squares are adjacent to each other a wall must seperate them.
- **S**tart squares may have multiple open sides while **E**nd squares **must be closed on 3 sides.**

Legal Legal Legal Not Legal Not Legal

- You cannot completely close off any region as shown in the examples below.



Not Legal Not Legal Legal

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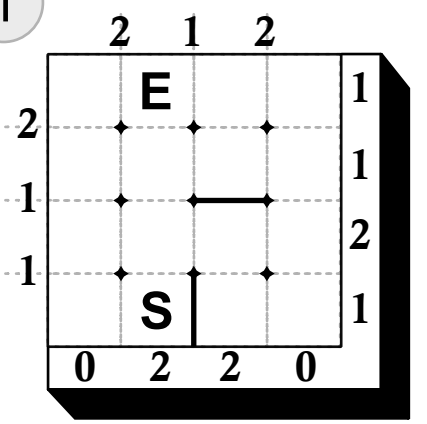

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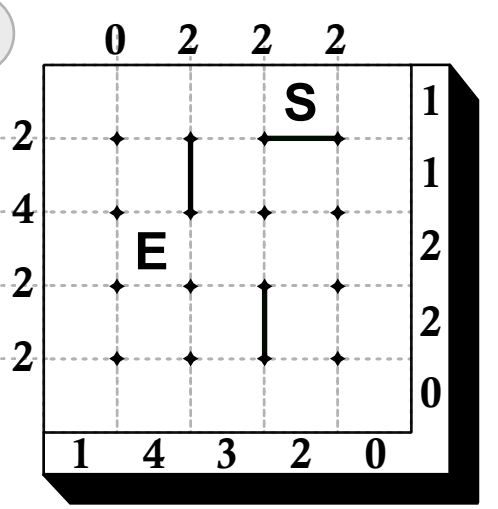

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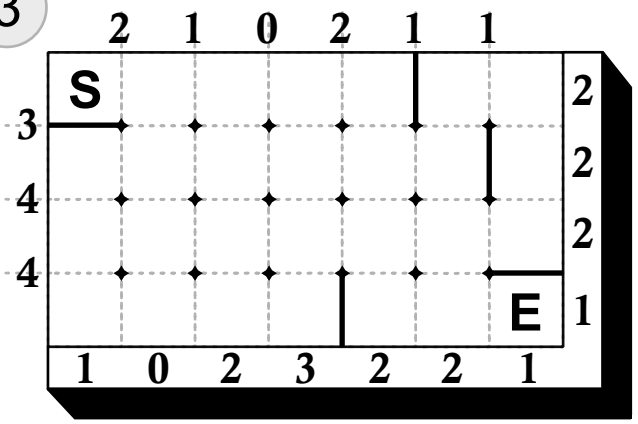

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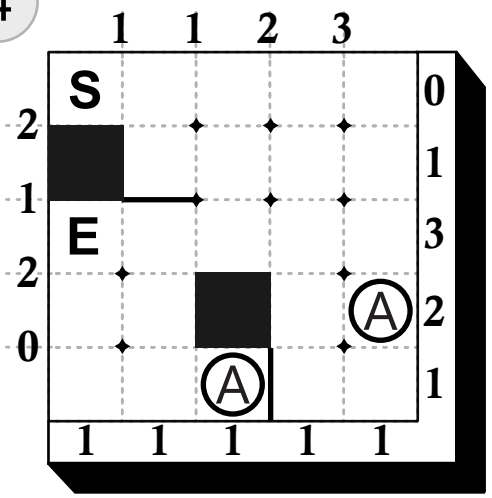

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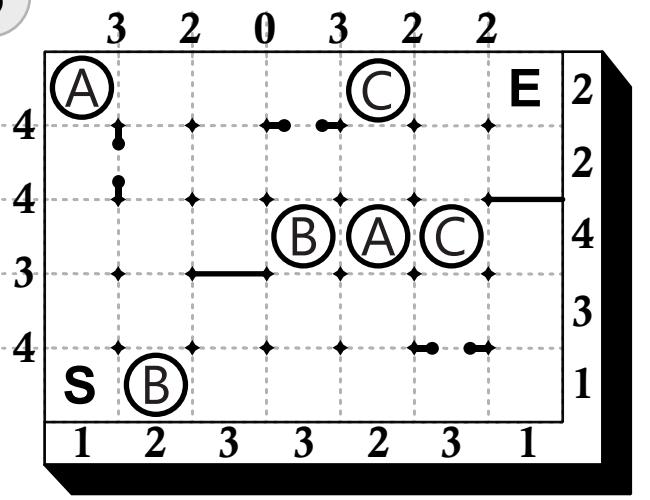
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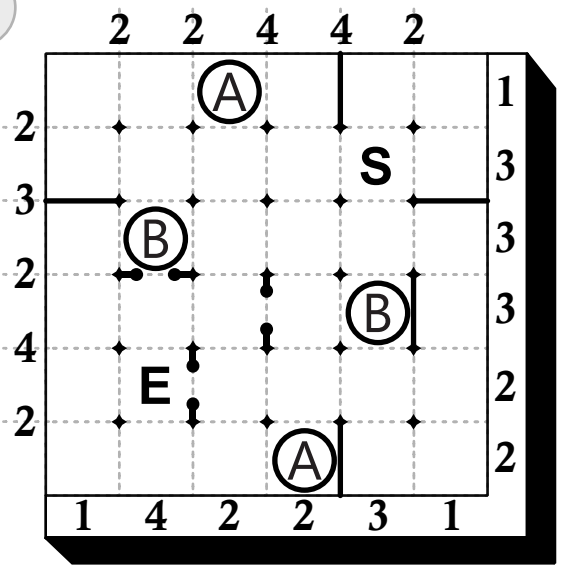
6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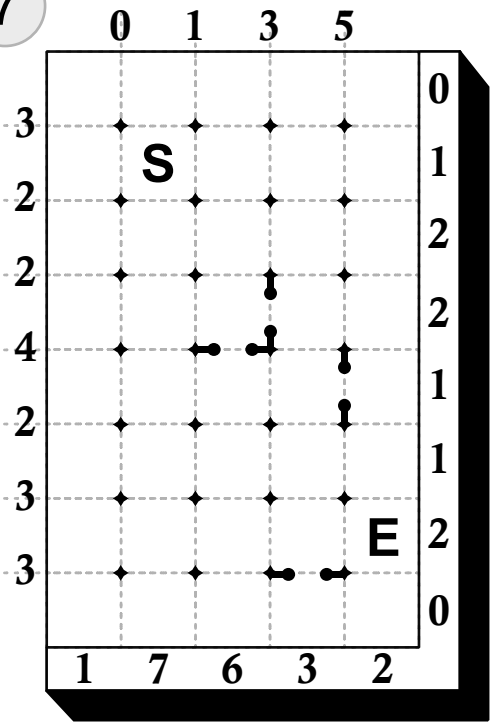
7



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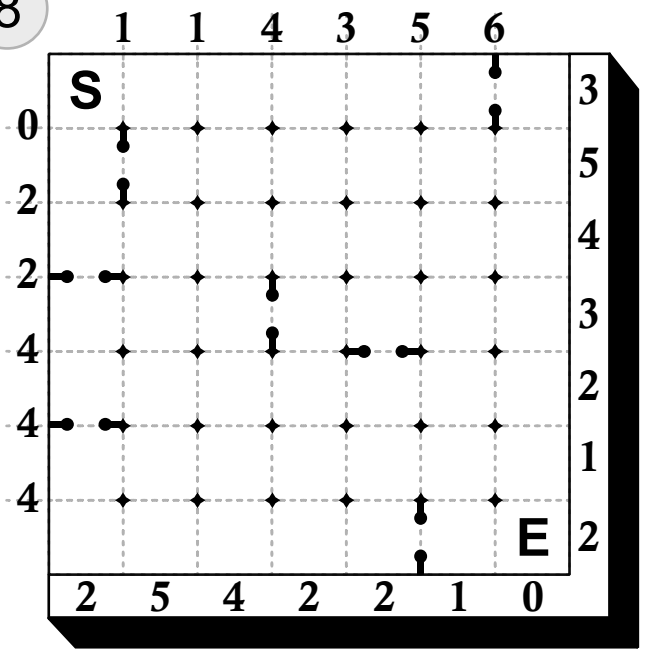

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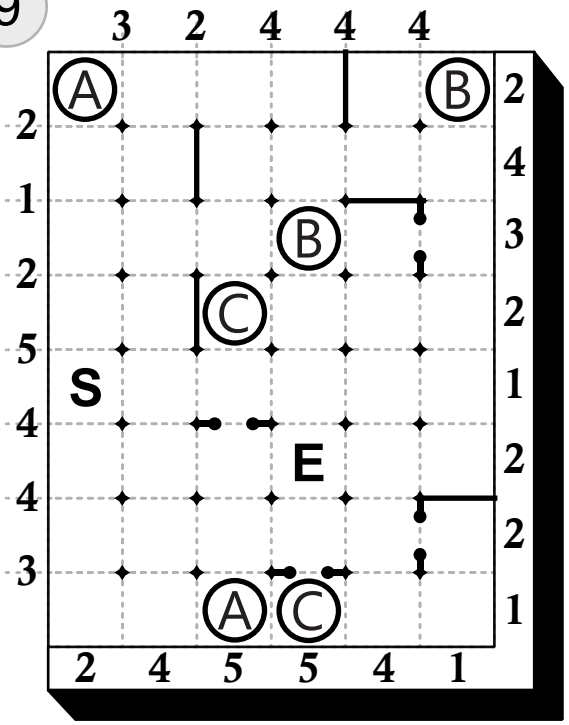
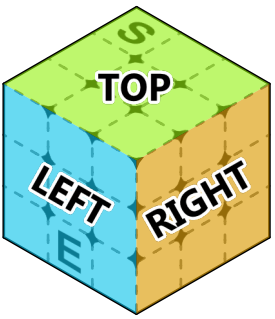


Solving a Sunome Cube follows the same basic rules and principles as a regular Sunome Puzzle.

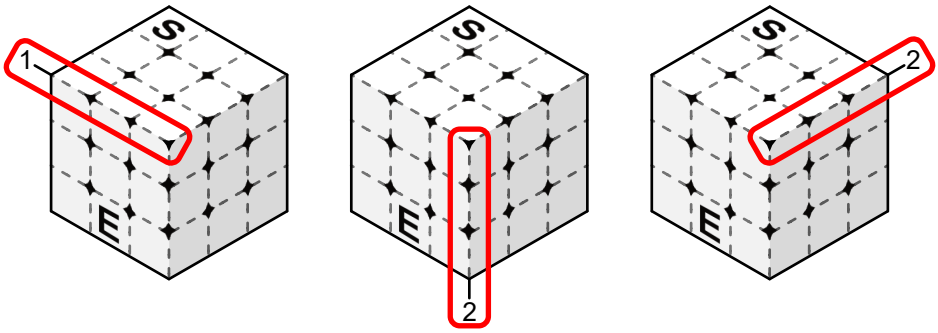
- You will be given information about the number of walls in both the columns and rows of the puzzle.
- There is only one path through the maze.
- All Nodes must have a wall attached to them.
- The **E**xit square must be closed on 3 sides.
- All squares must be accessible.
- A wall must trace back to the border or a pit.
- Cube puzzles may include starting walls, pits, portals, and/or passages.

HOW SUNOME CUBES <u>are</u> DIFFERENT

- There are 3 grids - or planes - that you will be drawing the maze on instead of 1; a Top, Left, and Right plane.



- There are 3 edge rows that are given special consideration.

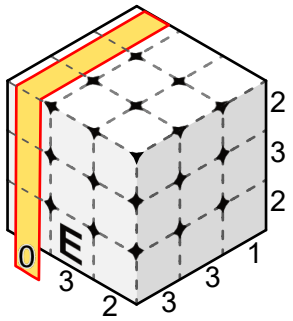


The Left edge wall has 1 edge wall while the Center and Right each have 2 edge walls.

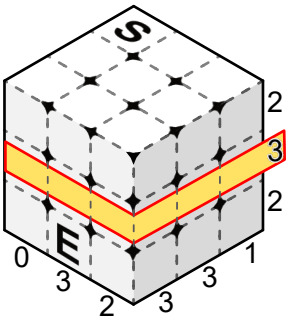
- Columns and rows wrap around the edge dividing two planes.

The numbers on the **bottom** and **right** of the puzzle indicate where there are walls in the **columns** and **rows** of the cube, respectively.

You can see in the examples below that the highlighted column and row wrap around the edge of the cube to include grid squares on 2 adjacent planes.



There are no (0) walls in the highlighted section.

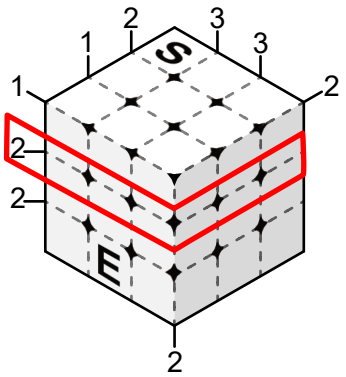


There are 3 walls in the highlighted section.

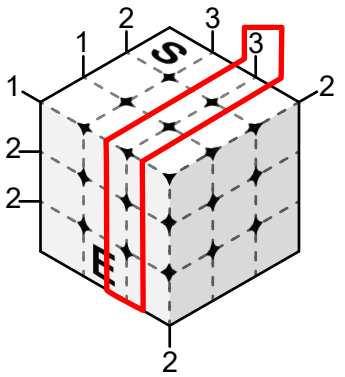
The numbers on the **left** and **top** of the puzzle (as-well-as the center edge row) indicate where there are walls on their respective lines.

You will notice that these numbers have a line between them and the dotted line they are associated with. This is to help remind you that that number is for that specific line.

Just as with the rows and columns, these lines wrap around the edge of the cube to include grid squares on 2 adjacent planes.



There are 2 walls within the enclosed area.



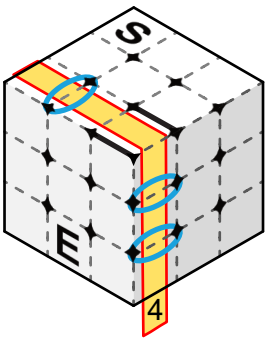
There are 3 wall within the enclosed area.

TIPS and **REMINDERS**

- Mistakes happen, use a pencil.
- There is only ever 1 path to the '**E**'nd. If you are struggling to solve a puzzle try working backwards from '**E**' with this rule in mind, placing walls that emphasis this.
- '**E**' only has one open side. Figuring out which side that is allows you to draw the surrounding walls with confidence.

- If a puzzle has **Portals** make sure those **Portals** are completely walled off from each other. Keeping this in mind may help you place walls if you get stuck.
- If a puzzle **does not have Portals** then all areas of the maze must be accessible. This rule may help you determine where a passage is and a wall is not.
- There are times where you can use the above rule to place several walls in a row or column without solving the entire row or column. See the example below.

There are 4 walls needed in the highlighted column. We can place 3 walls with confidence along the circled lines. If we were to place walls on the 2 un-circled lines it would create a closed space and thus be illegal.



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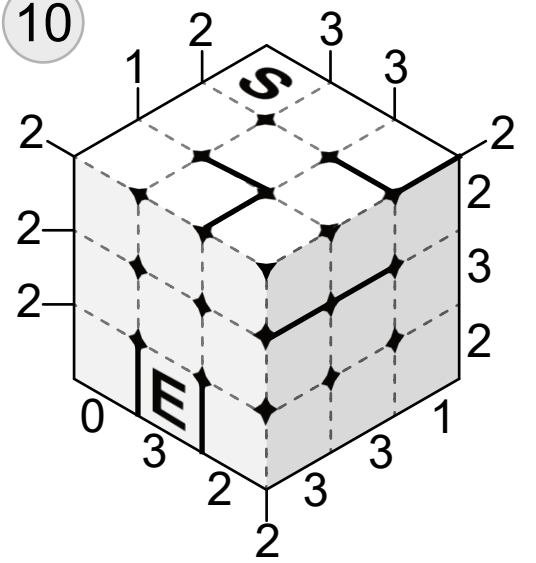

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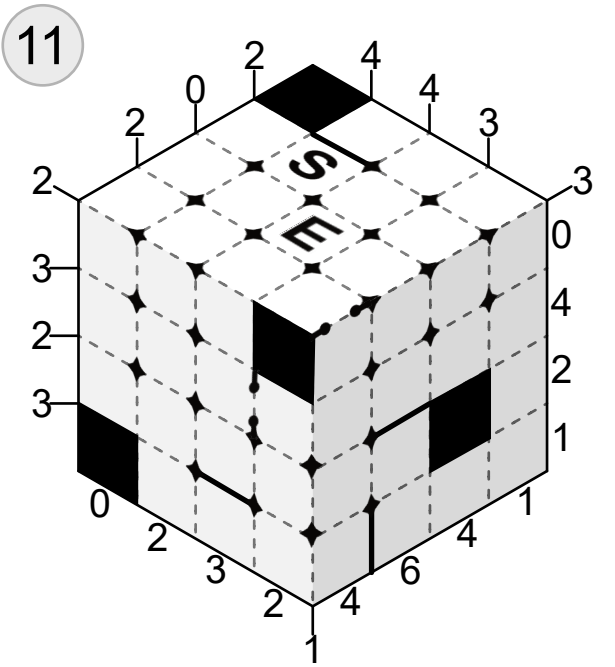

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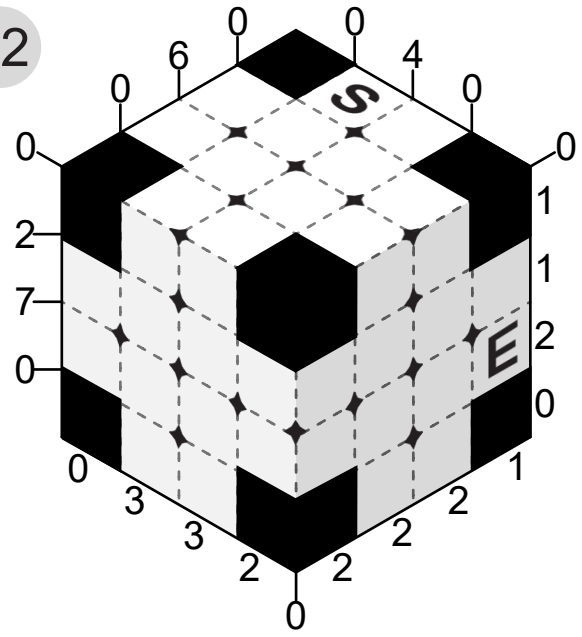
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S
0 0
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E 2
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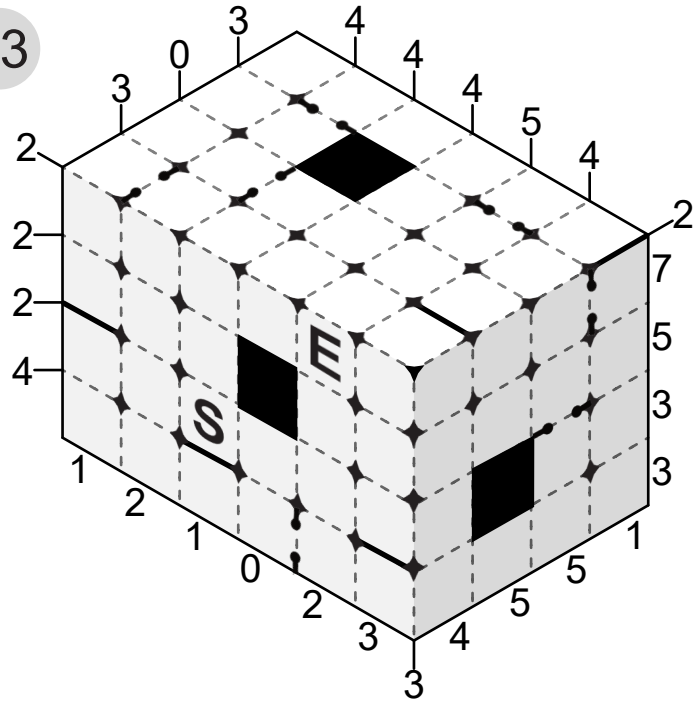
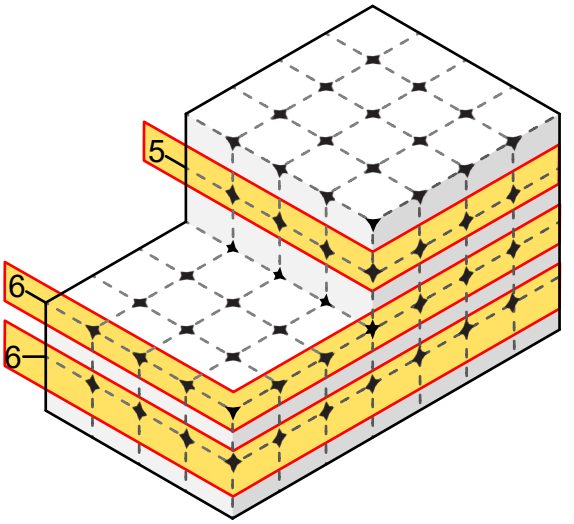
0 3 3 2 2 2 1
0

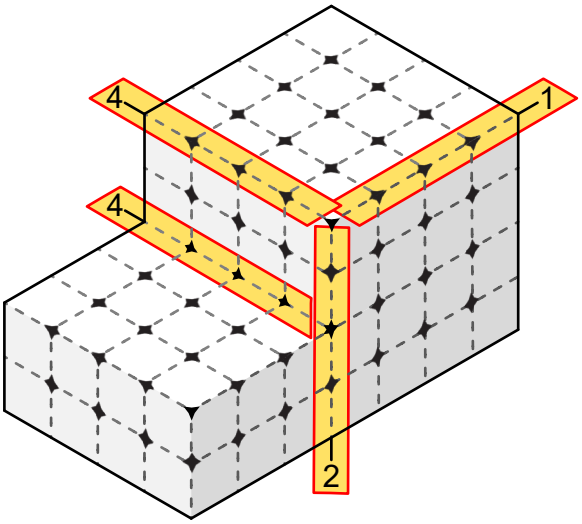
13


3 4
0 4 4 5 4
3 2
2 2
2 4
E 2 7
S 5
3
3
1 2 1 0 2 3 4 5 5 1
3

COMPOUND SHAPE

When solving the following compound shape keep in mind the highlighted lines in the examples below. These lines show how to interpret those clues introduced in the new shape.





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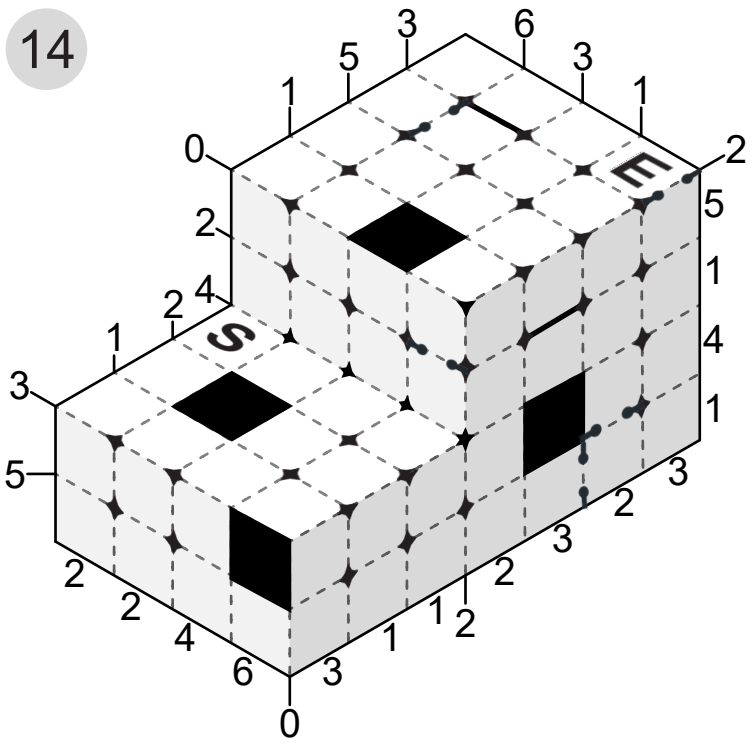
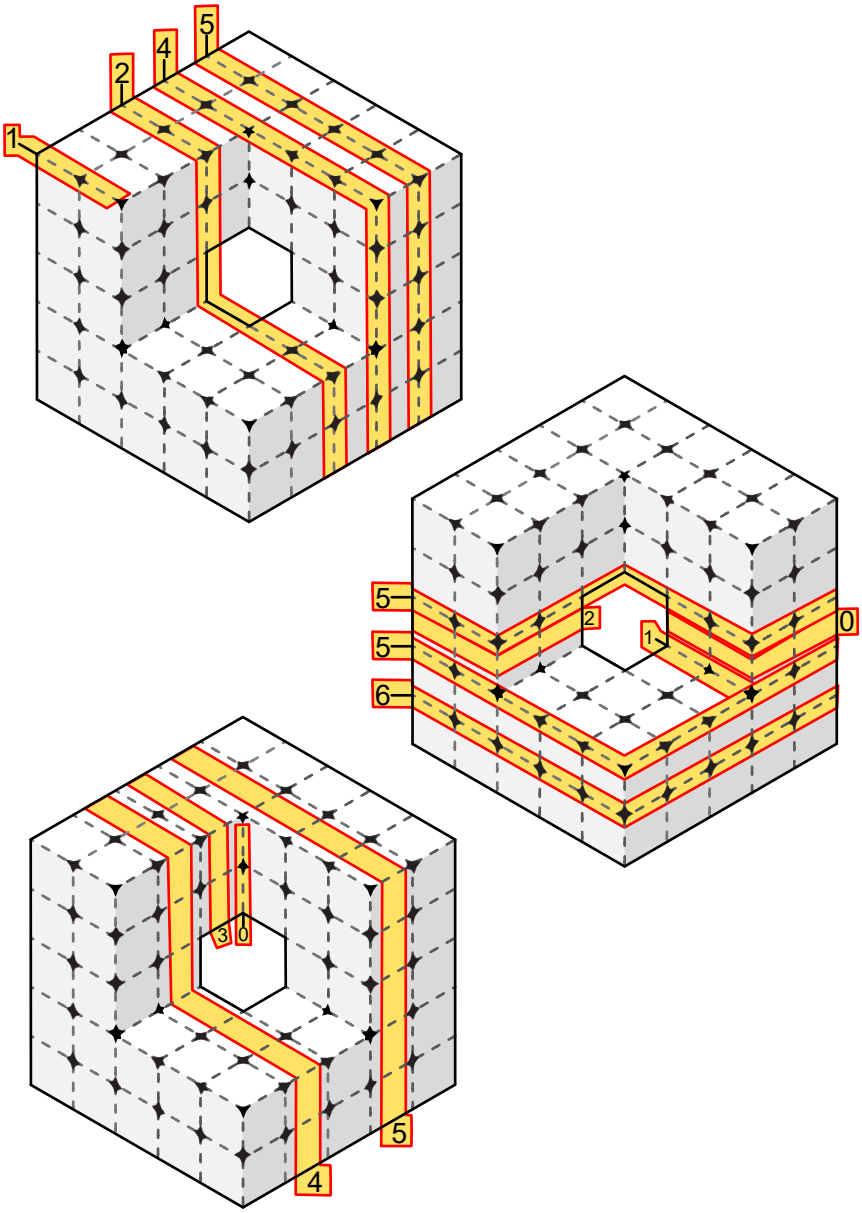
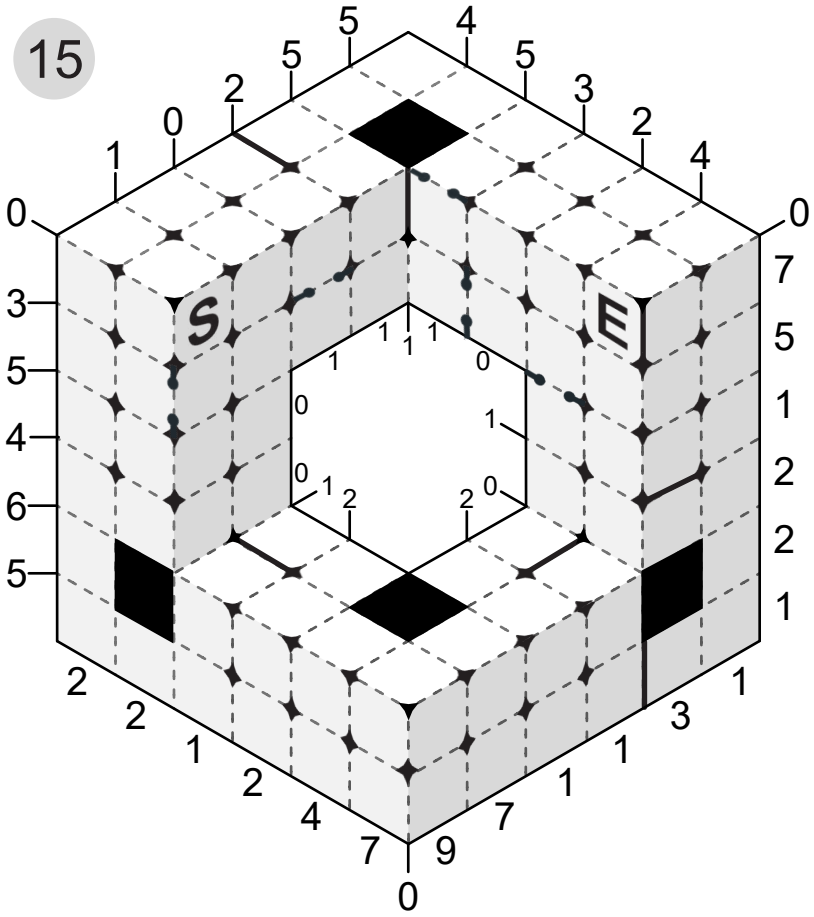


TORUS'

When solving the following compound shape keep in mind the highlighted lines in the examples below. These lines show how to interpret those clues introduced in the new shape.




15
S
E

ABOUT SUNOME BLOCK PUZZLES

With Sunome Block puzzles, you will use numerical clues to draw blocky shapes inside the puzzle area.

There are two sections within this book. The first section is dedicated to 2D block puzzles while the second section is dedicated to 3D block puzzles. Each section will be preceeded with an explanation of how to interpret the puzzles contained within.

PARTS of the PUZZLE

INTERNAL NUMBERS

Indicates how many shapes and the size of each shape in the puzzle.

PUZZLE NUMBER

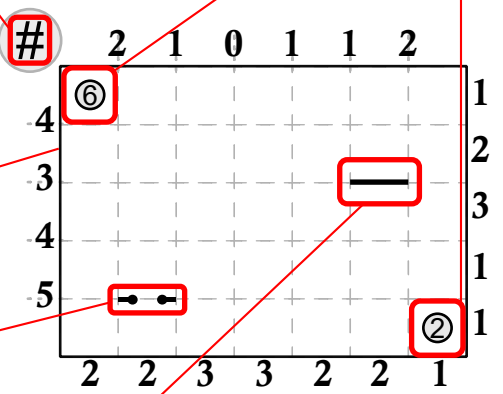
Used to reference the solution.

PUZZLE BORDER

Border surrounding the puzzle.

PASSAGE

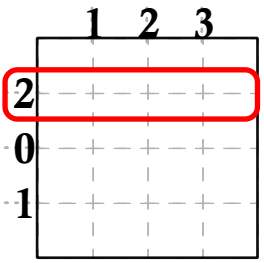
No wall may be present here.



STARTING WALLS

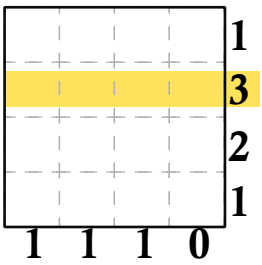
Preplaced walls to help you get started. These walls count towards the overall number of walls indicated by the External Numbers.

NUMBERS - TOP and LEFT



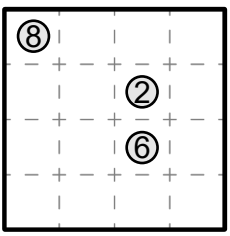
The External Numbers on the Top and Left side of the border tell you how many walls are on that **line** of the grid. In the puzzle to the right, the enclosed section (encircled in red) indicates that there are 2 walls present on that dotted line. These walls do not necessarily need to be adjacent to each other.

NUMBERS - RIGHT and BOTTOM



The External Numbers on the Right and Bottom of the border tell you how many walls exist in those **rows and columns**, respectively. In the puzzle to the right, the highlighted row indicates that there are 3 walls present in that row. These walls do not necessarily need to be adjacent to each other. The numbers along the bottom indicate the number of walls in their respective columns.

INTERNAL NUMBERS



The numbers inside the puzzle's border tell you how many shapes are within the puzzle and the size of each shape. In the puzzle to the Right, there are 3 Internal Numbers indicating there are 3 shapes that create the inside of the puzzle. One shape is 8 squares in size, another is 2 squares, and the third is 6 squares in size.

RULES

- There is only **one solution** to each puzzle.
- The solution must fulfill every condition; the exact number of walls stated by the External Numbers and the exact number and size of shapes as stated by the Internal Numbers.
- There are **no free hanging walls**; walls must create a fully enclosed shape.
- All shapes must stay contained within the puzzle border.
- If two Internal Numbers are next to each other, there **must** be a wall between them.

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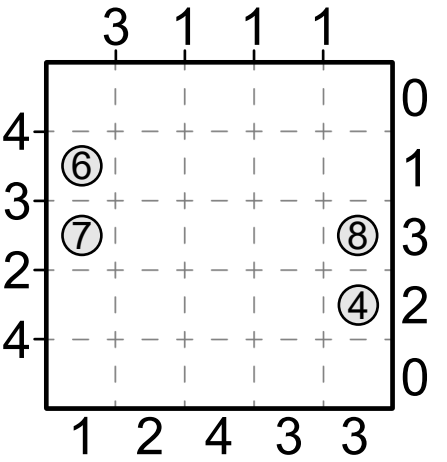

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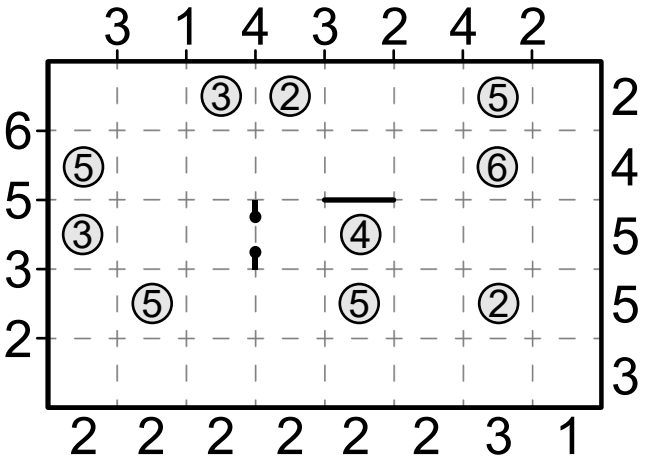

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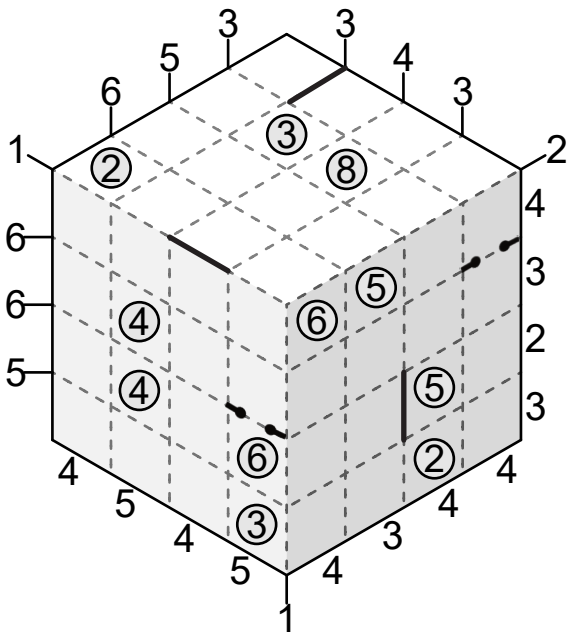

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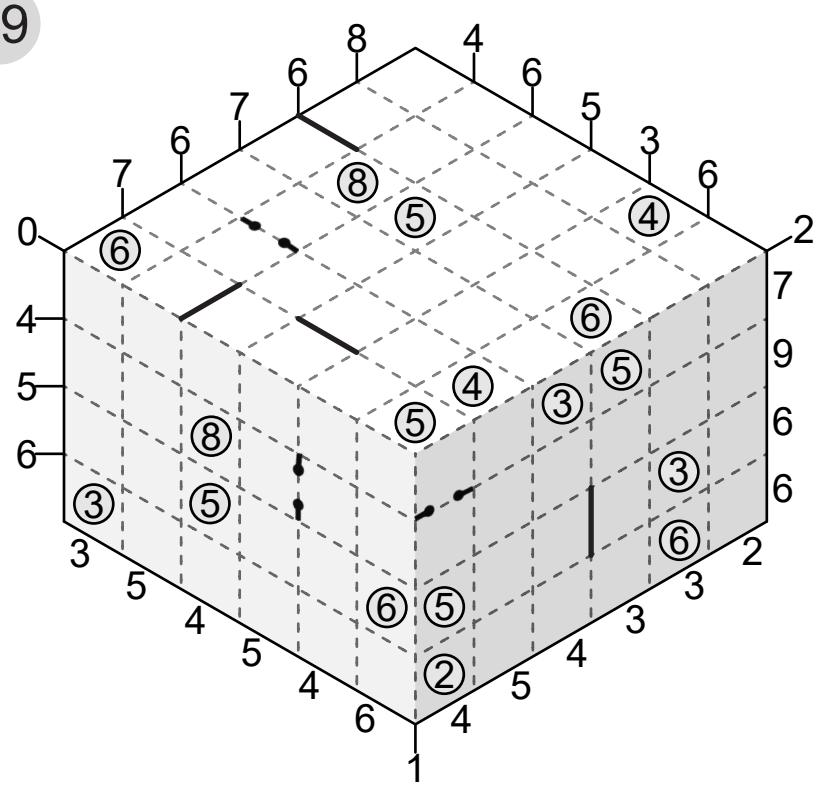

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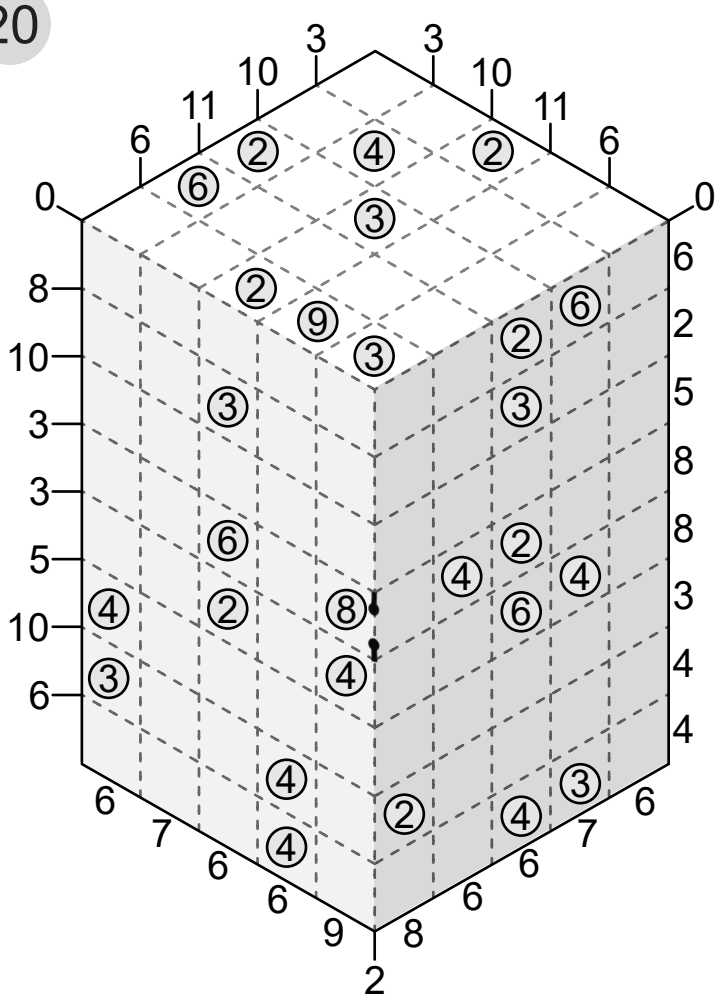


KARTOODLE

Drive home but make sure to run your errands first. Map your route making sure you stop at each shop while navigating your way around the roadblocks.

RULES

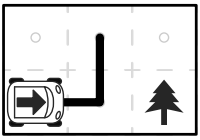
- Draw a line, dot to dot (—), from the car to the house stopping at each shop along the way.
- Draw where all the shops and roadblocks are using the numerical clues as a guide. You may need to draw portions of the route line to determine some their locations.
- The line must stop at each shop before going to the house.
- The line must go into each section of the puzzle.
- The line cannot cross itself.
- If the line reaches the map's edge it must turn.

ICONS

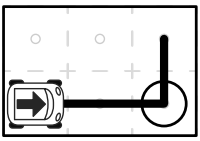
Car - This is where the route line begins. The arrow on top shows the direction the line is to be initally drawn. The car goes in a straight line until something makes it turn.

House - The puzzle is finished when the line goes into the house. Shops and roadblocks could not be drawn on the House.

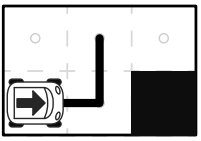
Tree - Trees act as a roadblock. The drawn line must turn when you reach the tree.



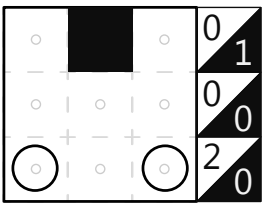
Shop - You must draw the line into each shop before you arrive at the house. You must turn after you stop at each shop.



Roadblock - You cannot draw the line through a roadblock and must turn when you reach it.



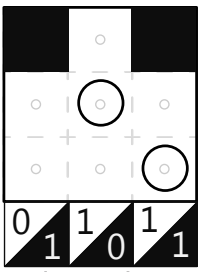
LEFT SIDE NUMBERS



Indicate the number of shops ( ) and roadblocks ( ) in the respective row.

In the example to the right, the top row has 1 roadblock, the middle row is empty, and the bottom row has two shops.

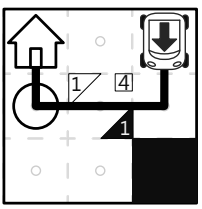
BOTTOM SIDE NUMBERS



Indicate the number of shops ( ) and roadblocks ( ) in the respective column.

In the example to the right, the first column has 1 roadblock, the second column has 1 shop, and the third column has one shop and 1 roadblock.

INTERNAL NUMBERS

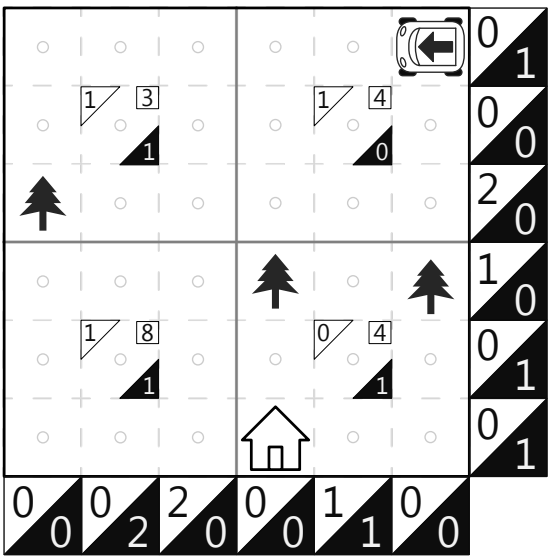


Indicate the number of shops ( ) and roadblocks ( ) in it's section. The line number ( ) indicates how many squares the line must enter. This number does **not** include the car ( ).

In the example to the right, the internal number indicates there will be 1 shop and 1 roadblock as-well-as a line that goes into 4 squares in the section.

Shops and roadblocks can be drawn inside the internal number block.

21

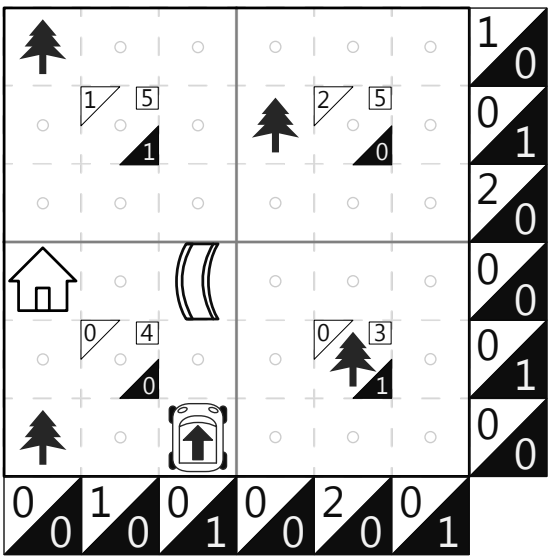


BRIDGES

Bridges () allow a route line to cross over itself.

- If a puzzle has a bridge then it must be used.
  - The route must go both over and under the bridge.
- Roadblocks and shops cannot be placed on bridges.

22

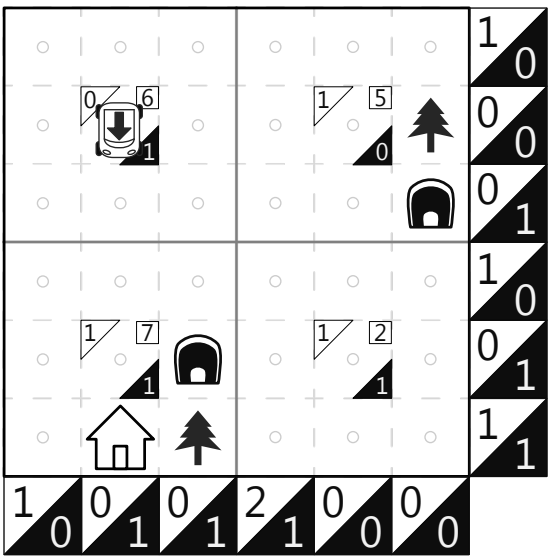


TUNNELS

Tunnels () teleport the route to a different area of the map.

- If a puzzle has tunnels then they must be used.
  - When entering the first tunnel, the route continues in the same direction out of the second tunnel.
- Roadblocks and shops cannot be placed on tunnels.

23



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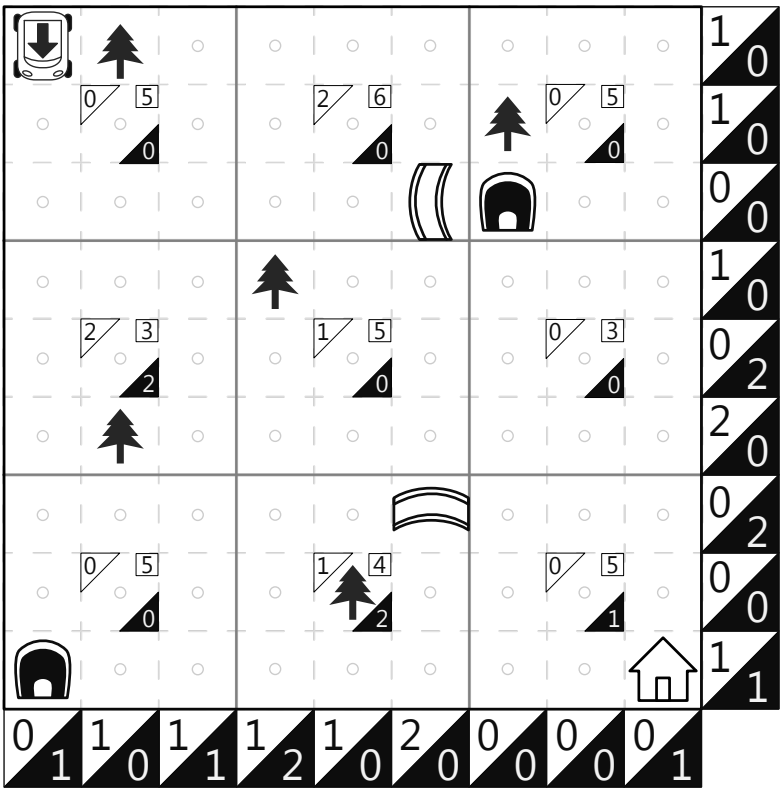
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2 6 0
0 5 0
1 0
1 0
0 0
2 3 2
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1 0
0 2
2 0
0 5 0
1 4 2
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0 0
0 0
0 1

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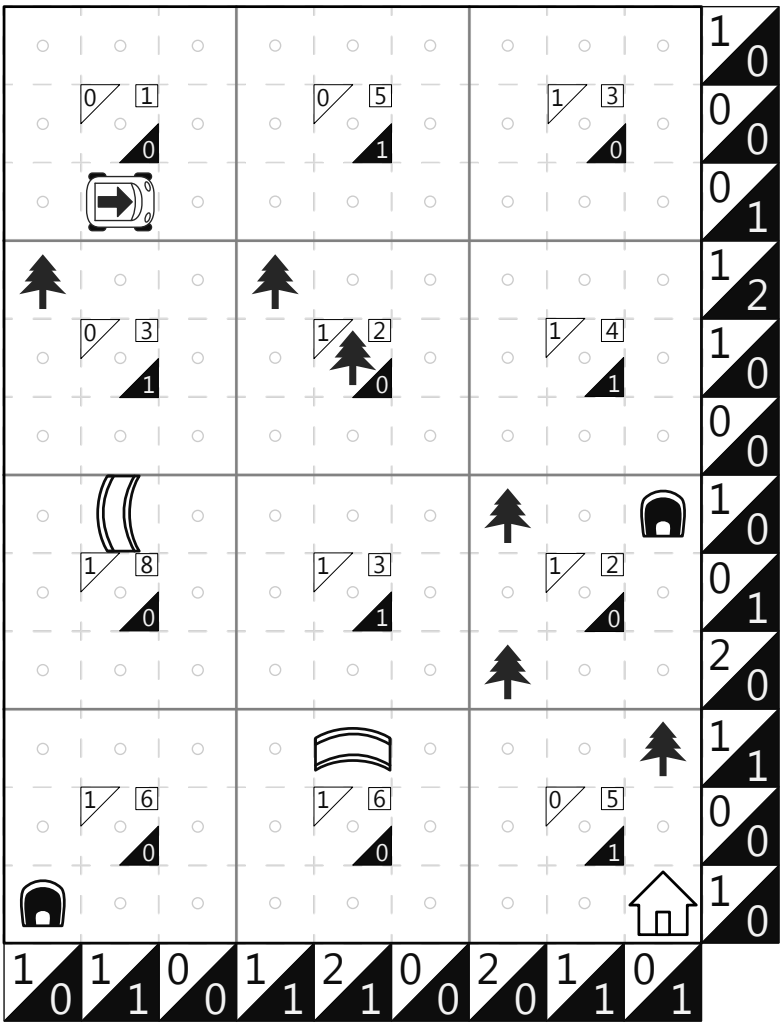


Skyways!

RULES

Guide airplanes to different airports while avoiding thunderstorms and other airplanes and their flight paths.

1. Each airplane ( ) will have one or more letters on them. These tell you what airports ( ) they want to visit.

2. Draw a line (flight path) from the airplane to the airport(s) listed on the plane in the order listed.

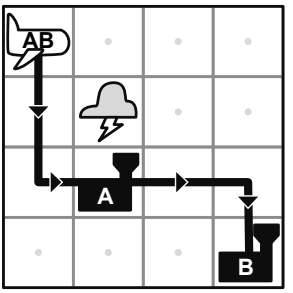
3. The flight path cannot be drawn through a thunderstorm ( ) or another airplane.

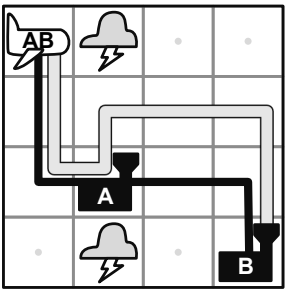
4. When drawing the flight path, draw it from dot to dot and use as few turns as possible.

5. There can only be one flight path in each square.

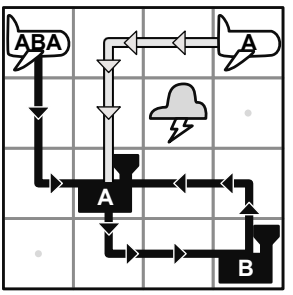
6. Airplanes can leave an airport through any open side.

7. An airport can host as many planes as it has open sides.





The black flight path has fewer turns than the grey path and is thus the preferred path.



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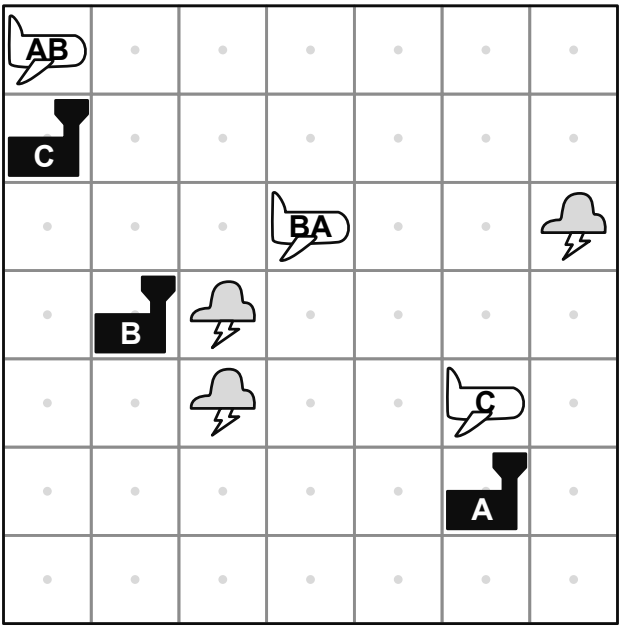

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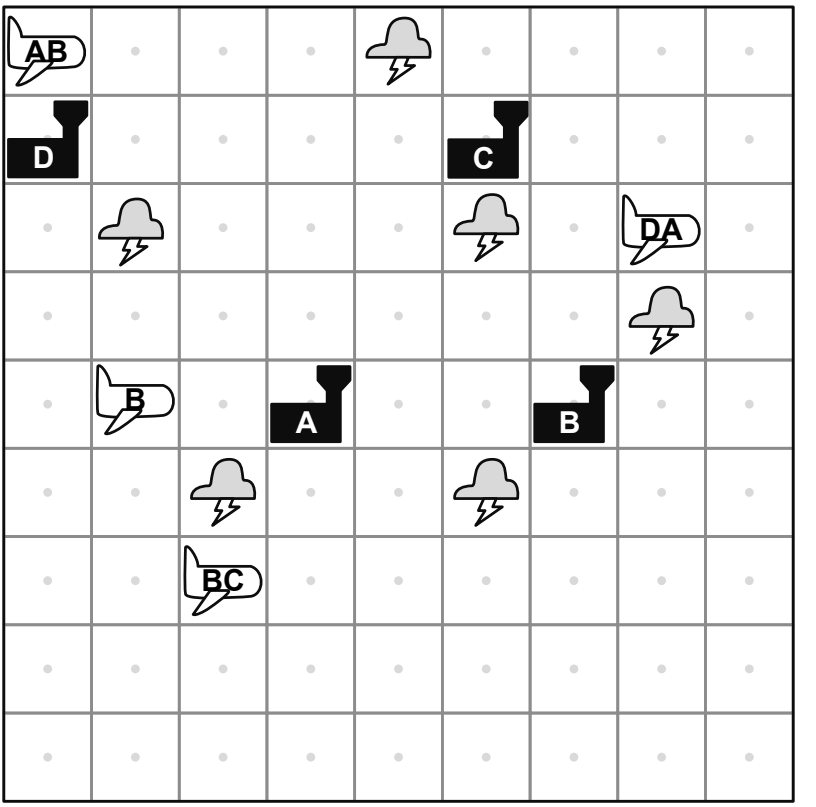

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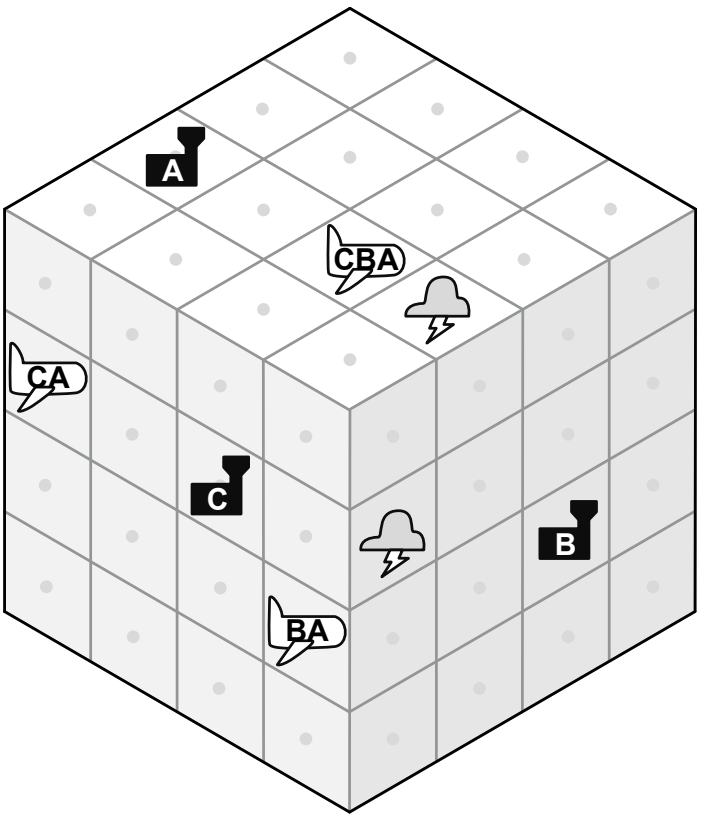

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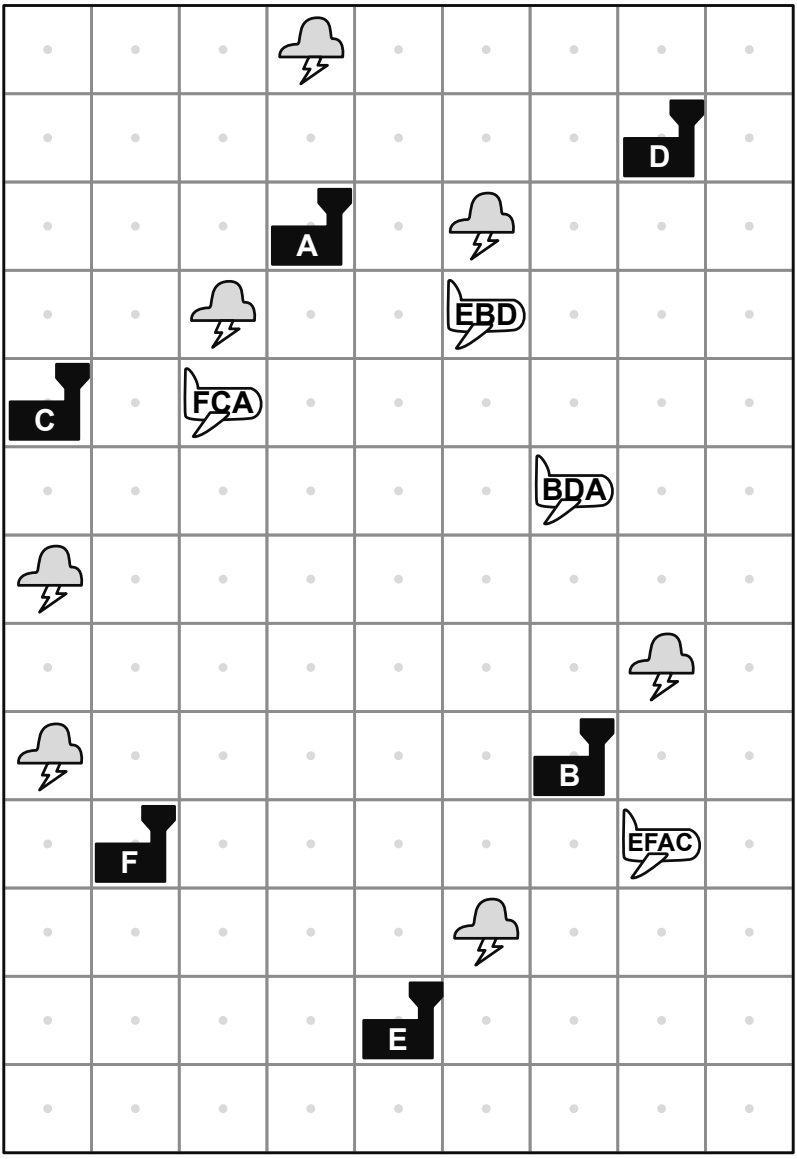

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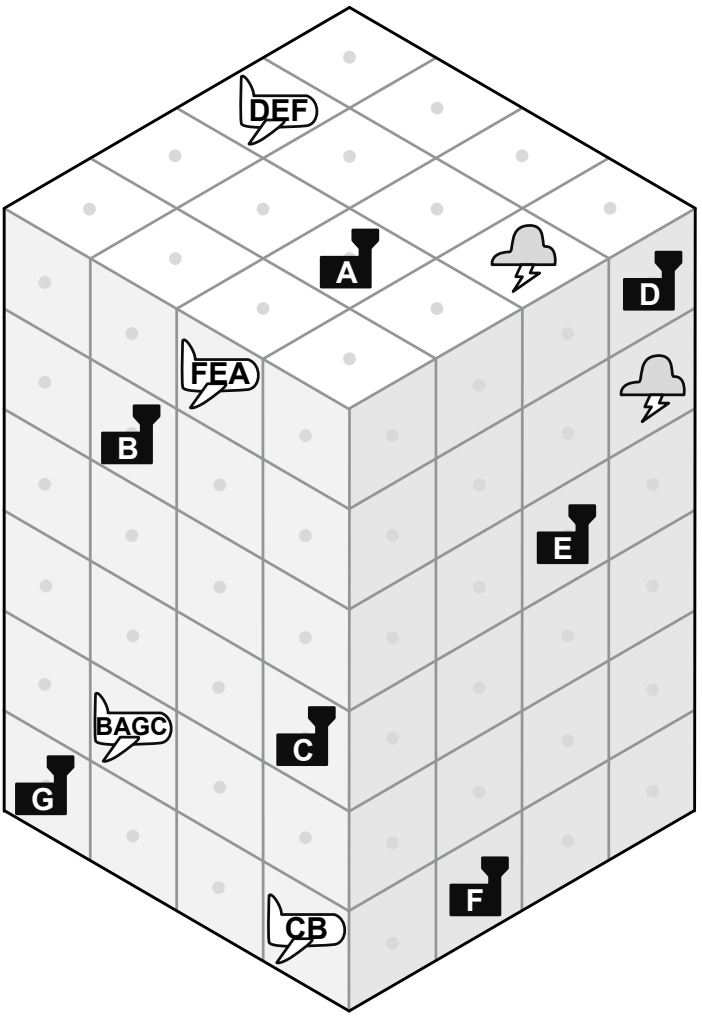
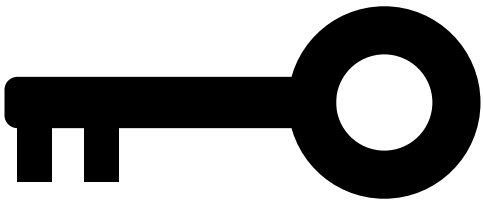


Solutions



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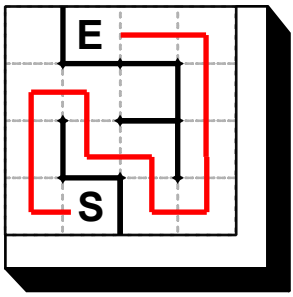

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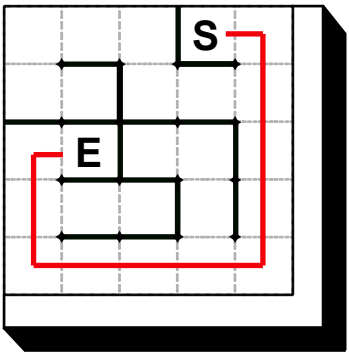

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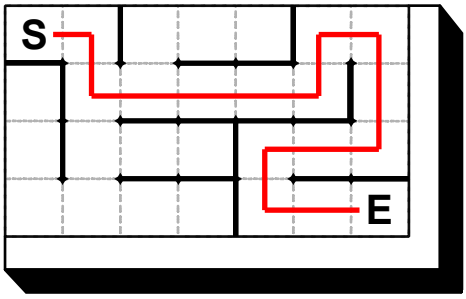

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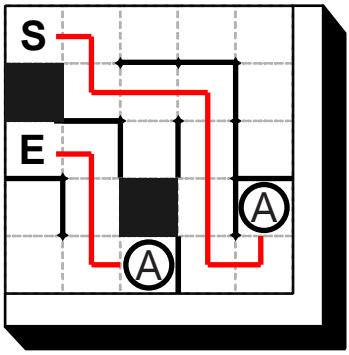

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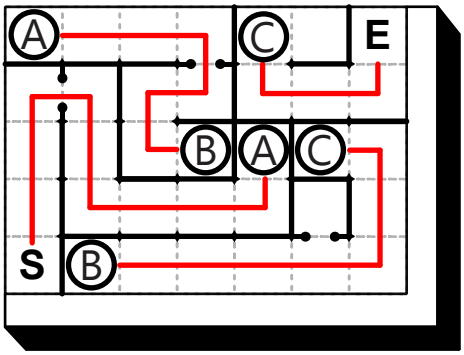

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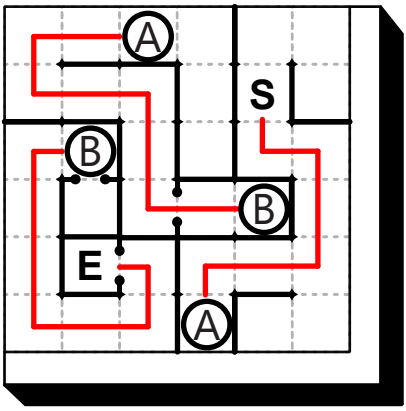

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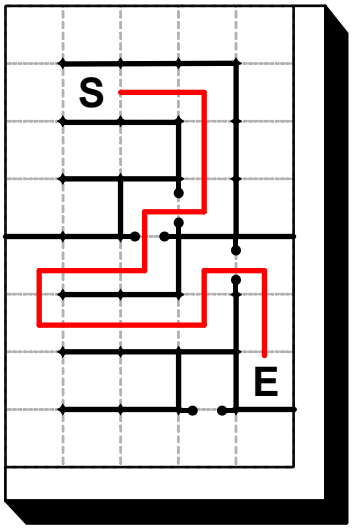

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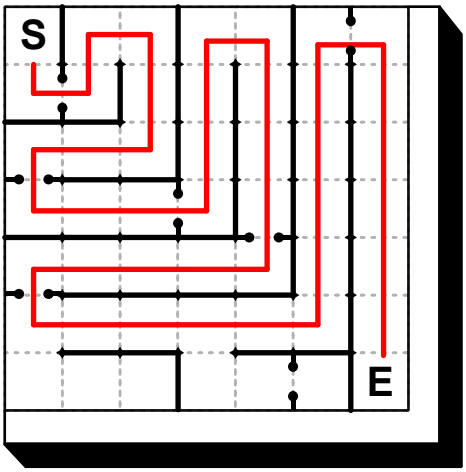

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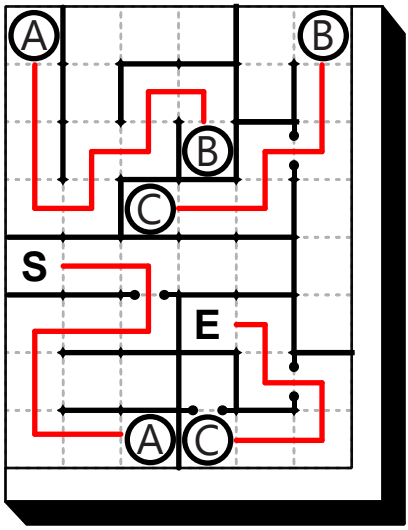

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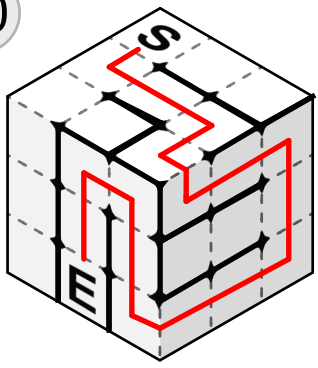

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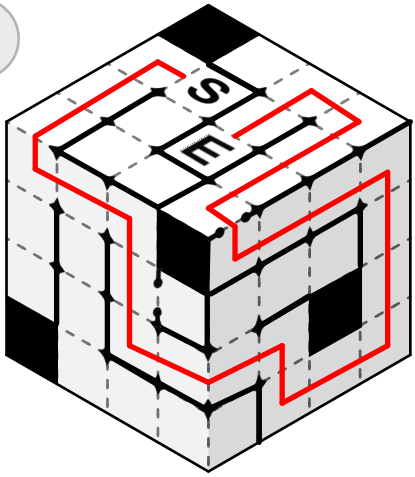

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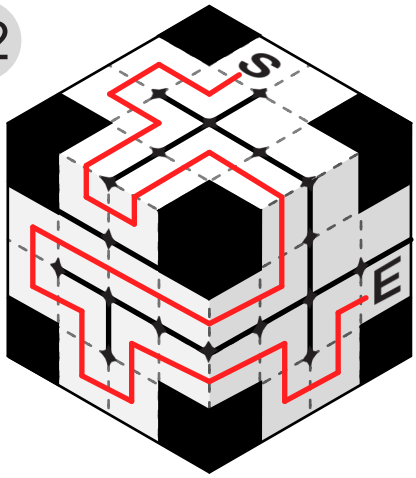

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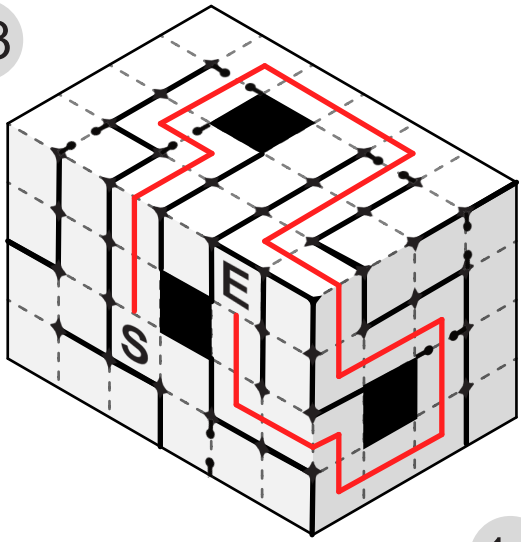

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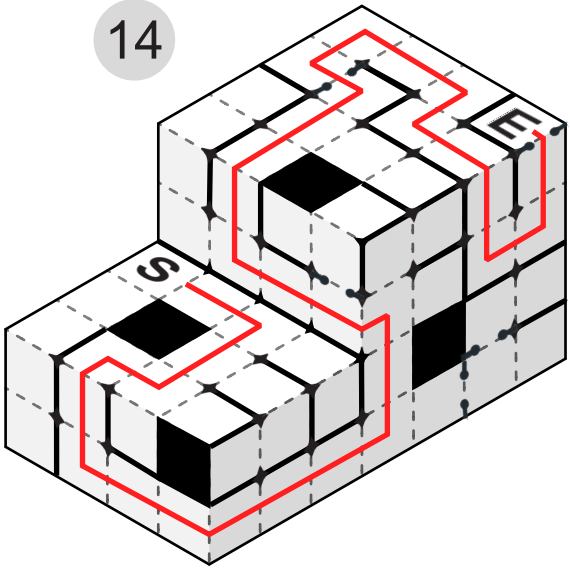

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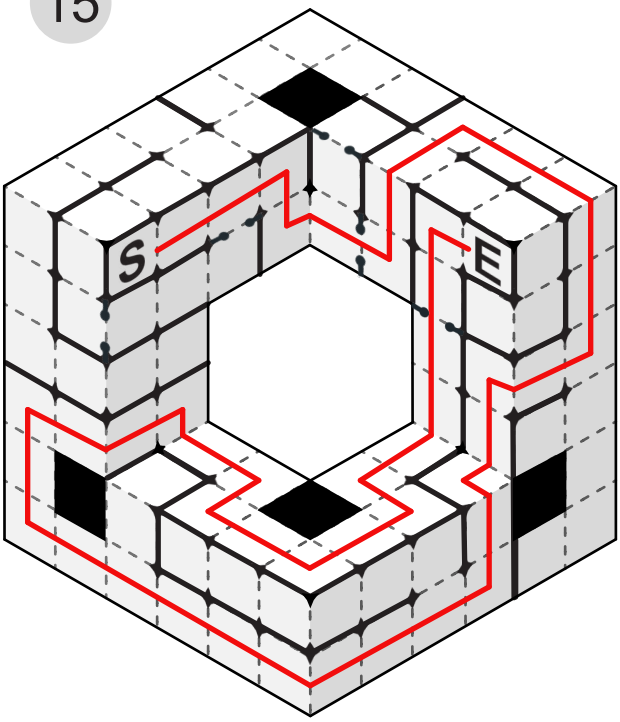

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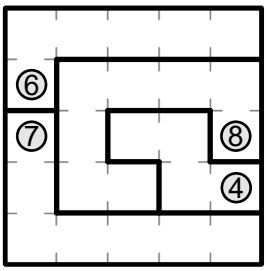

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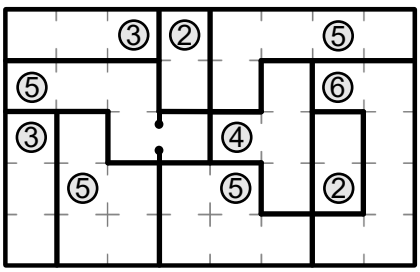

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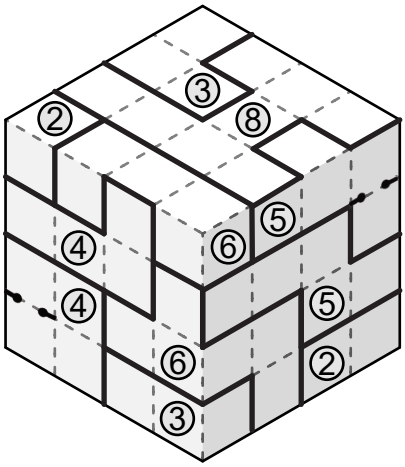

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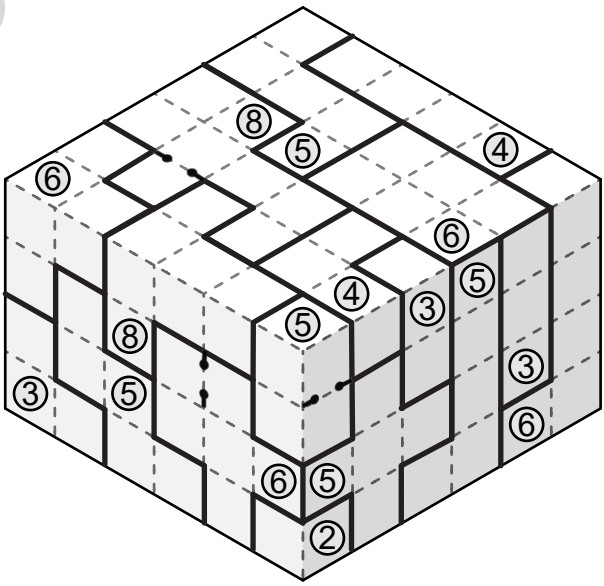

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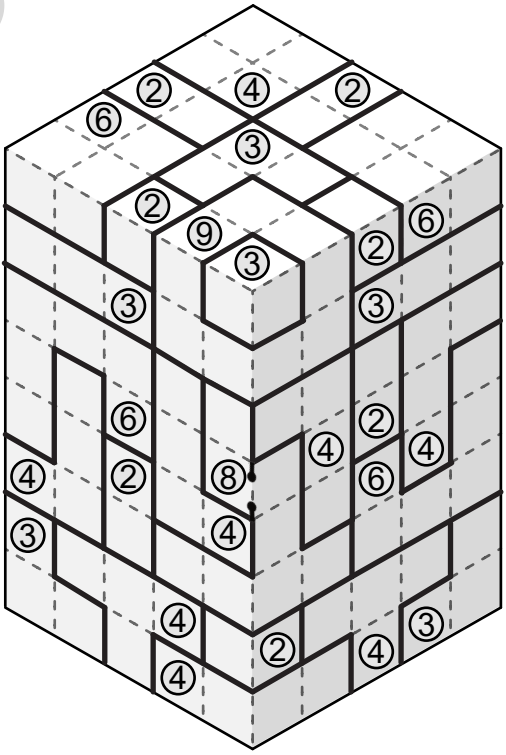

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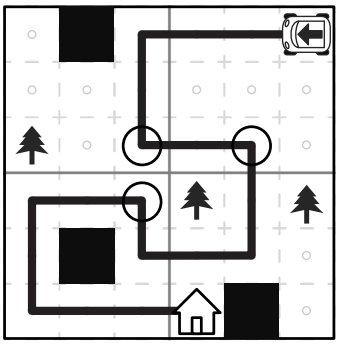

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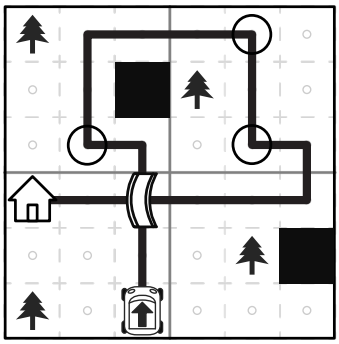

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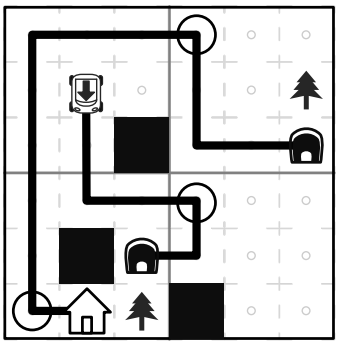

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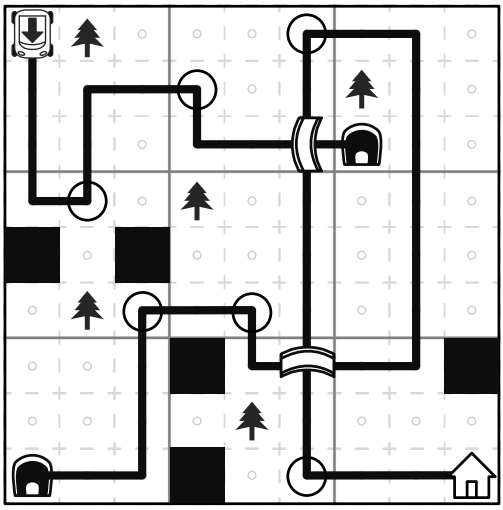

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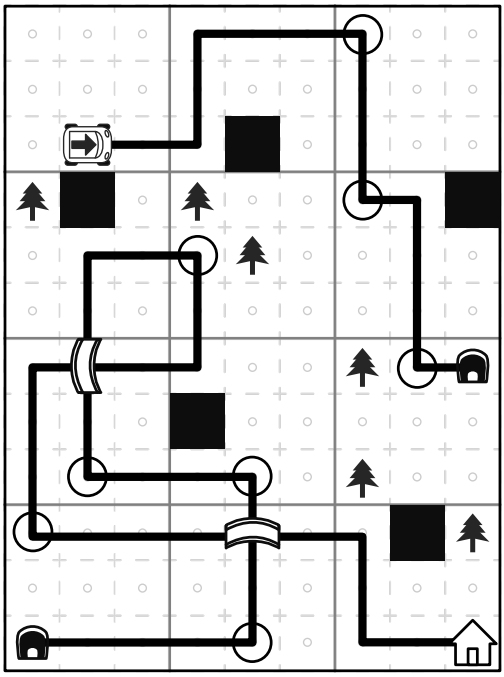

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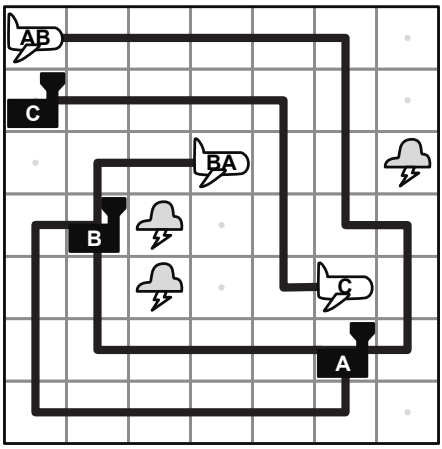

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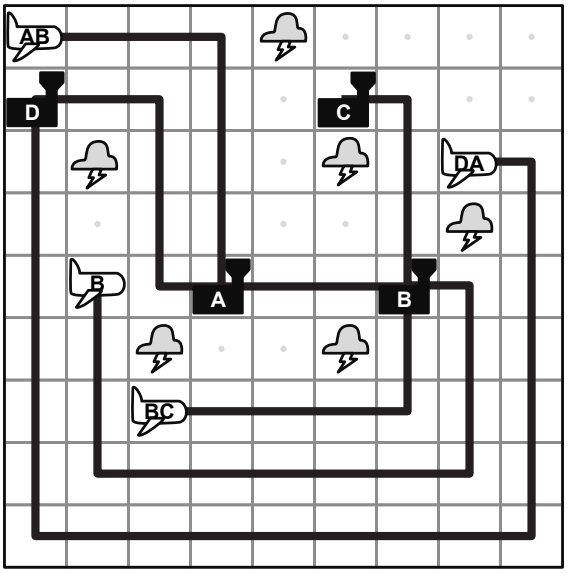

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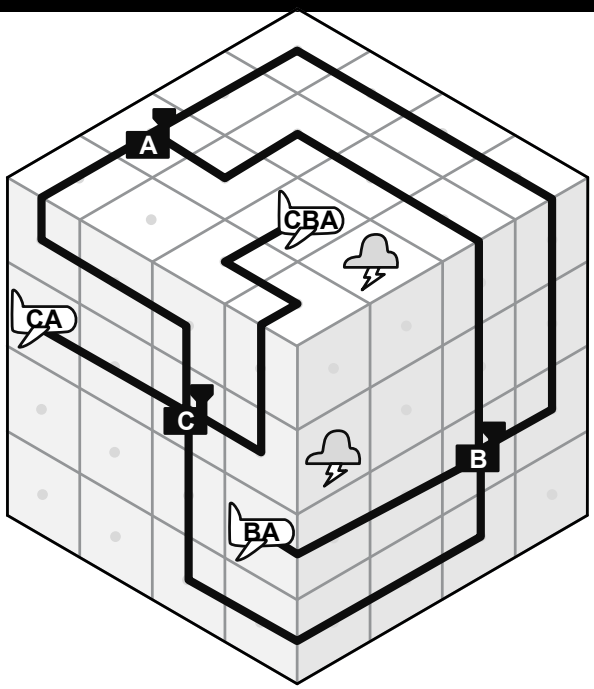

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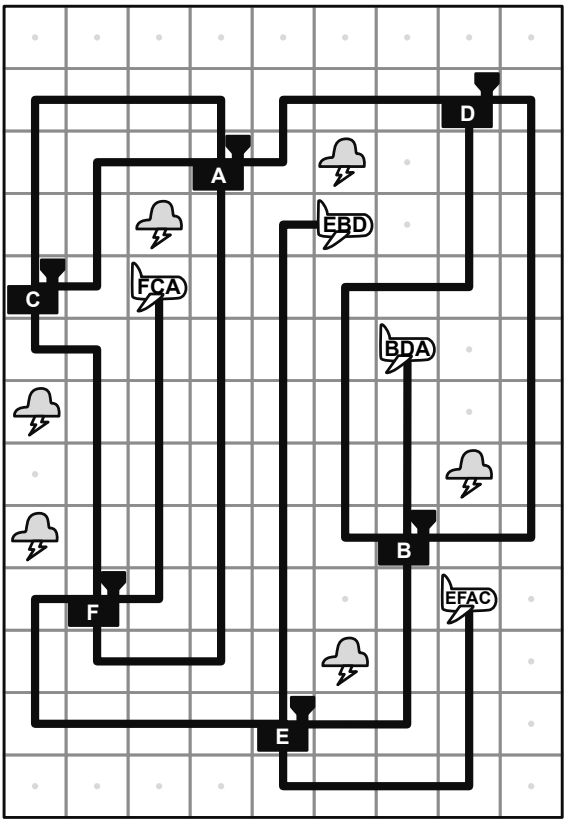

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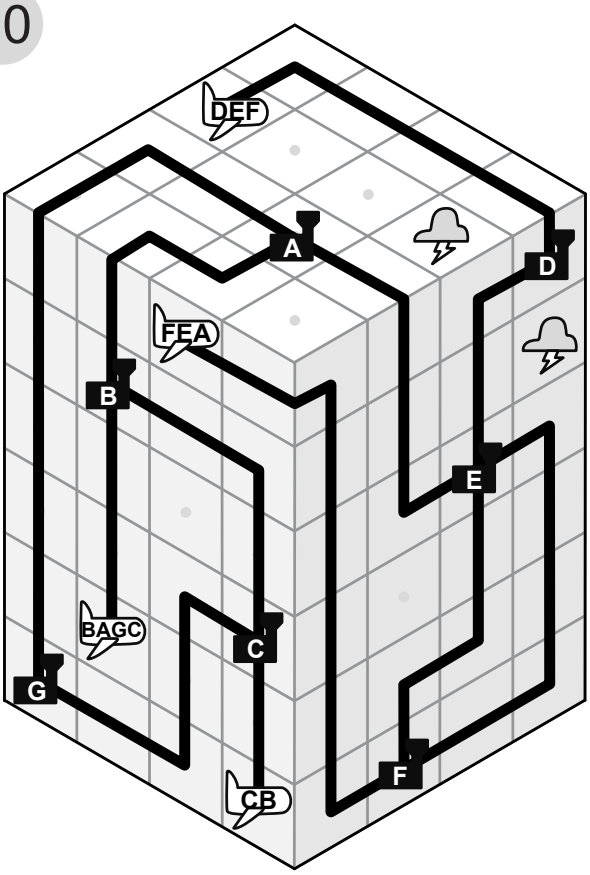

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