

IDEA 45

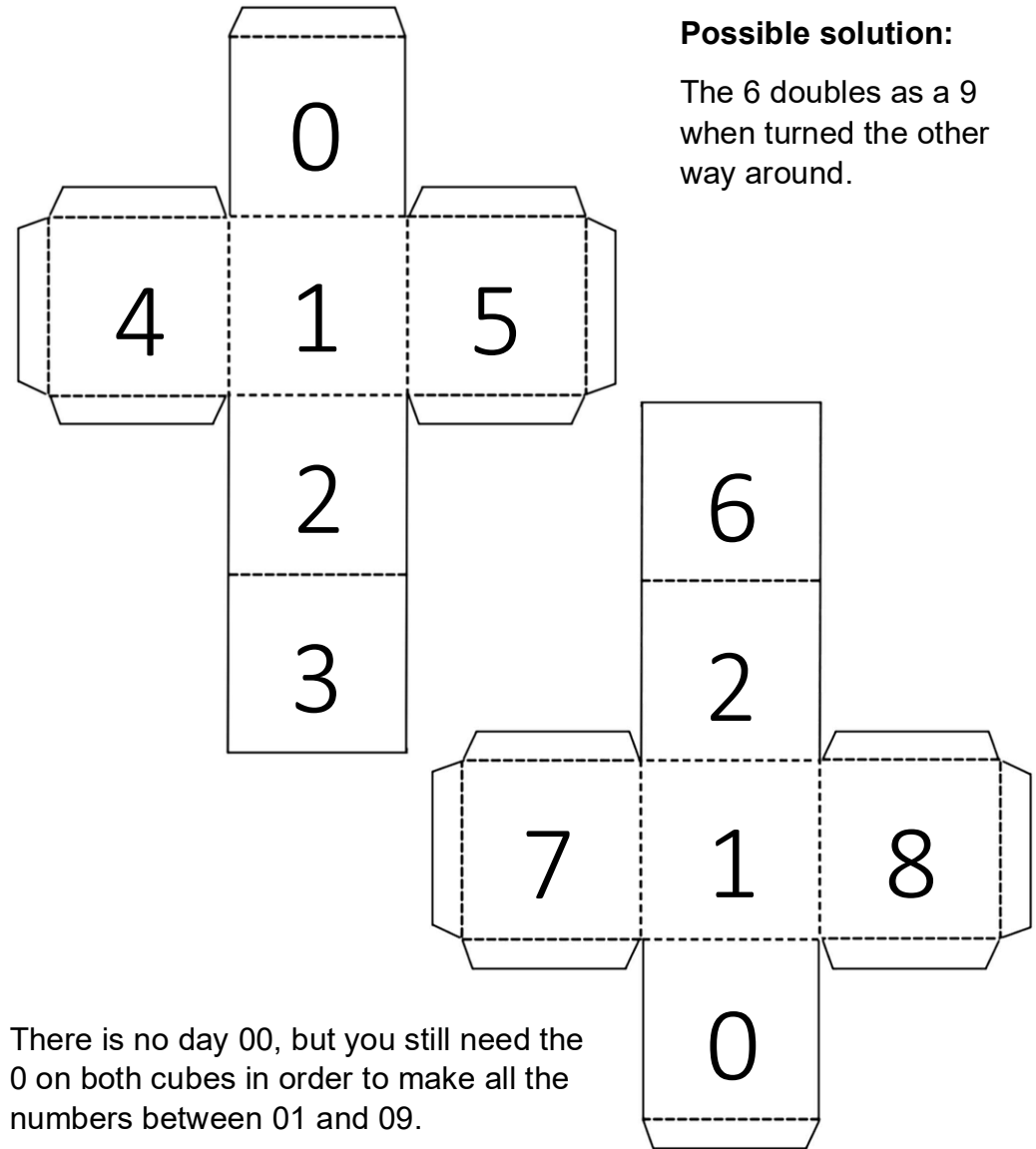
Puzzle me

Cube Challenge

A **two-cube calendar** is a desk calendar consisting of two cubes with faces marked by digits **0** through **9**.

Challenge: Fill in the gaps in the cube nets (opposite) so that it is possible to arrange the cubes so that any chosen day of the month (from 01, 02, ... through 31) is visible on the two front faces.

Note: You can't represent the day "7" with a single cube with a side that says 7 on it. You have to use both cubes all the time. So the 7th day would be "07".



Possible solution:

The 6 doubles as a 9 when turned the other way around.

There is no day 00, but you still need the 0 on both cubes in order to make all the numbers between 01 and 09.

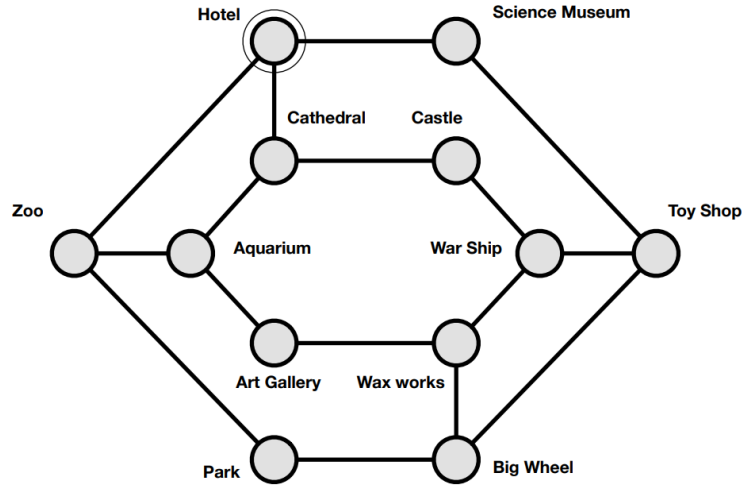
IDEA 45

Puzzle me

The Tour Guide

You are a hotel tour guide. Tourists staying in your hotel expect to be taken on a tour visiting all the city's attractions.

You have been given an underground map that shows all the locations of the attractions and how you can get from one to another using the underground network. You must work out a route that starts from the hotel and takes your tour group to every tourist site. The tourists will be unhappy if they pass through the same place twice. They also want to end up back at their hotel that evening.



The Tour Guide (Answer)

There are many solutions. One solution is:

Hotel – Science Museum – Toy Shop – Big Wheel – Park – Zoo – Aquarium – Art Gallery – Wax Works – War Ship – Castle – Cathedral – Hotel

IDEA 45

Puzzle me

Word Ladder

Convert the word LISP into the word JAVA in 5 steps or less. You must only change one letter of the word on each step. On every step you should have created a word in the English dictionary.

L I S P

- - - -

- - - -

- - - -

- - - -

J A V A



Word Ladder (Solution)

Here is one solution:

LISP

LIMP

LAMP

LAMA

LAVA

JAVA

Simple Sudoku

Rules:

- Every square must contain a single number
- Only the numbers from 1 through to 9 can be used
- Each 3x3 box can only contain each number from 1 to 9 once
- Each vertical column can only contain each number from 1 to 9 once
- Each horizontal row can only contain each number from 1 to 9 once

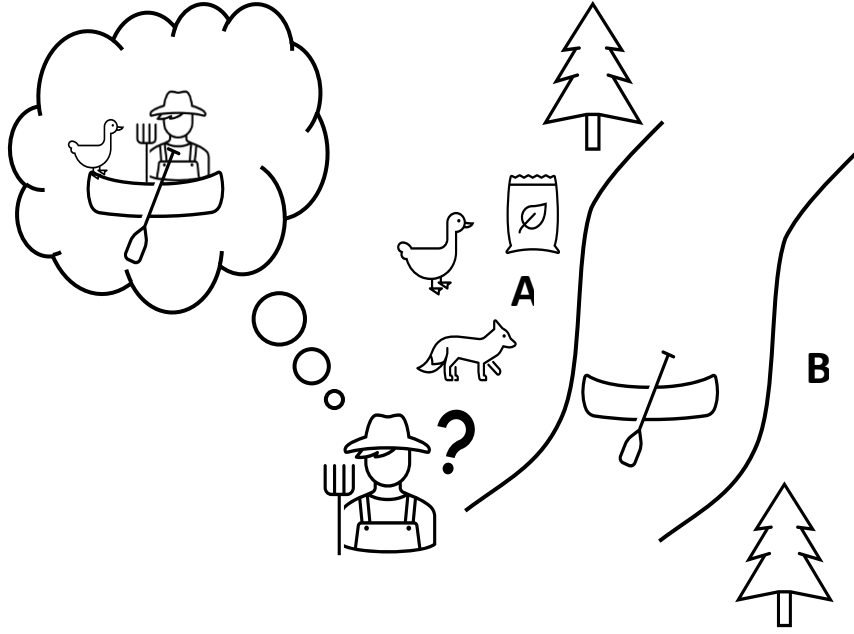
Once the puzzle is solved, this means that every row, column, and 3x3 box will contain every number from 1 to 9 exactly once.

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

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

River Crossing Conundrum

A farmer must transport a fox, a goose, and some grain across a river. He has a boat which he can row back and forth from shore to shore. He can take himself and one other thing in the boat. However, unless he is present, the goose will eat the grain and the fox will eat the goose. How can he transport all three things across the river?



River crossing (Solution)

Take the goose over

Return

Take the fox or grain over

Return with the goose

Take the grain or fox over

Return

Take goose over

Note: The key to solving this puzzle is realizing that the farmer can bring things back!