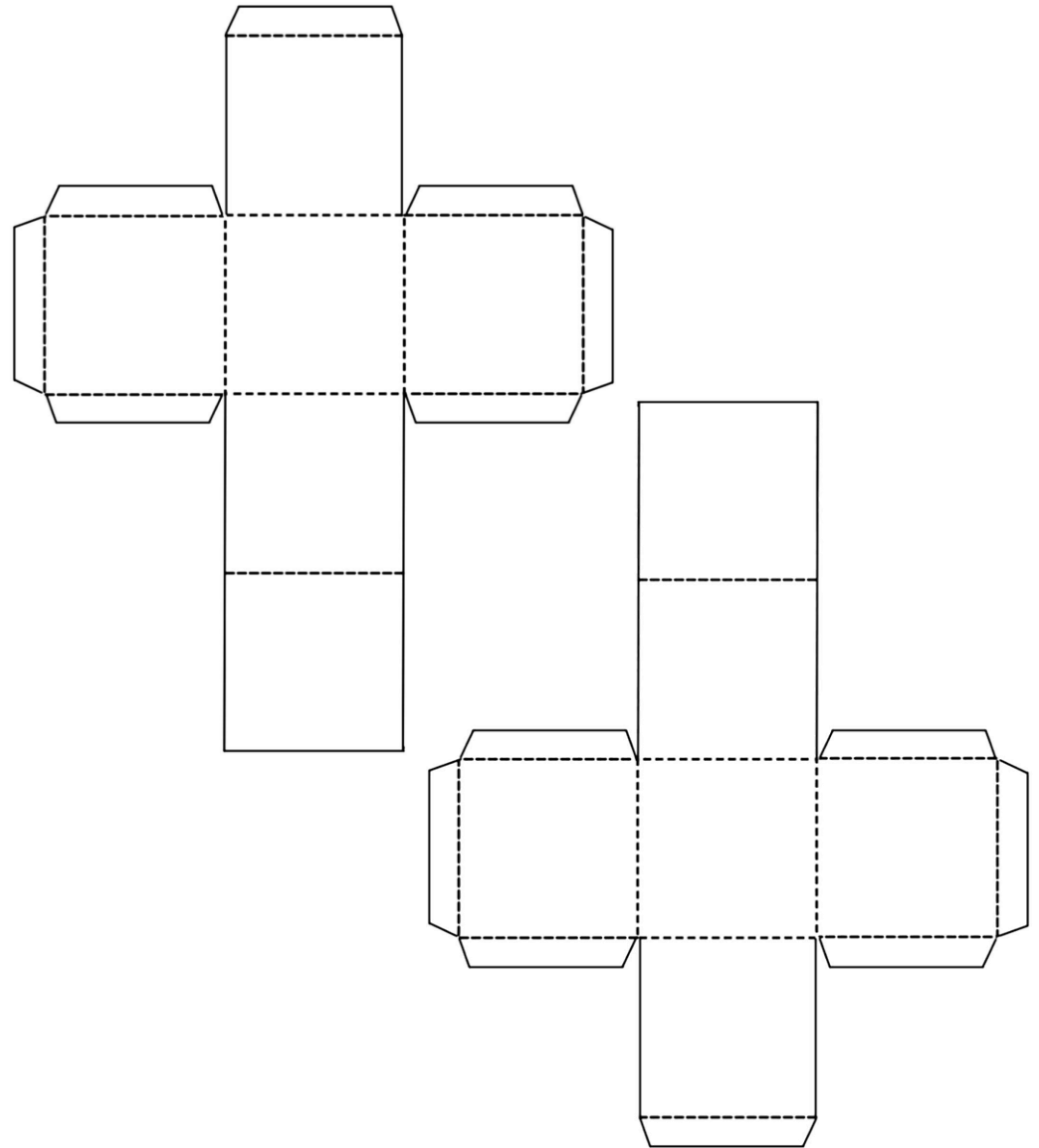# Puzzle me

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".
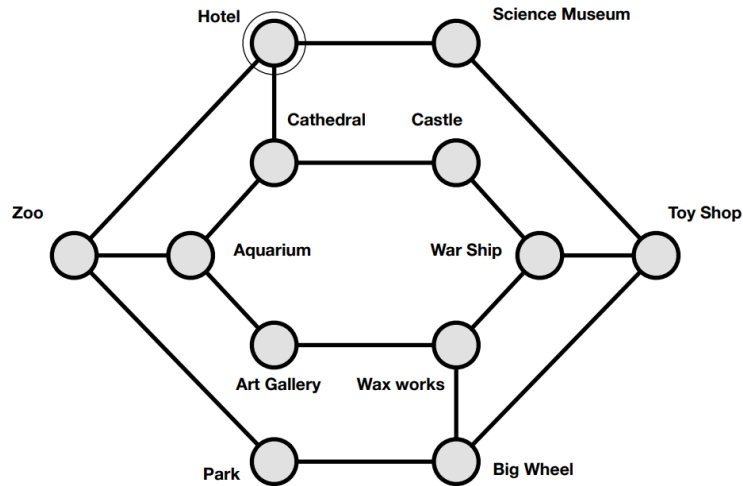
The Tour Guide

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.

Hotel   Science Museum

Cathedral   Castle

Zoo   Aquarium   War Ship   Toy Shop

Art Gallery   Wax works

Park   Big Wheel

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
```

Puzzle me

Simple Sudoku

Rules:

- Every square must contain a single number
- Only the numbers from 1 through to 9 can be used
- Each 3×3 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 3×3 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

Puzzle me

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?