

# 磁鐵 Magnets

Magnets is a logical game. The objective is to fill a rectangular grid with a mixture of 1x2 magnets such that all the clues are satisfied.

Rules:

- 1) The grid is divided in to 1x2 rectangular boxes. Each box can contain no or one magnet, with one positive end and one negative end.
- 2) The numbers closer to the grid are the numbers of positive poles in that row/column. Others are the numbers of negative poles in that row/column.
- 3) No two similar magnetic poles may be orthogonally adjacent (since they repel).

Example

				1	1
				2	2
				2	2
				2	2
2	1	2	2		
1	2	2	2		

Stage 1:

Consider the total number of positive and negative poles, it is known that all boxes on the right-hand side must contain magnets. Therefore, the box on the top left corner is empty.

X	X			1	1
				2	2
				2	2
				2	2
2	1	2	2		
1	2	2	2		

Stage 2:

From the numbers on the bottom left corner, the directions of placement of the three horizontal magnets is confirmed.

X	X			1	1
+	—			2	2
—	+			2	2
+	—			2	2
2	1	2	2		
1	2	2	2		

Stage 3:

Place other magnets.

X	X	—	+	1	1
+	—	+	—	2	2
—	+	—	+	2	2
+	—	+	—	2	2
2	1	2	2		
1	2	2	2		