

## Magnets: step-by-step solutions for an easy puzzle

There are usually several ways to work towards a solution. Here is one way.

An effective way to use these step-by-step solutions is to cover up everything in the box except the initial suggestion, which is in italics. See if you can figure out what to do, then check it with my suggestion, shown in the next stage.

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>							2
<b>2</b>							3
<b>1</b>							1
<b>2</b>							2
<b>2</b>							2
	1	1	2	2	2	2	-

*Look at the last column.*

There are 5 rows, so since there are 3 + signs in that column, they must be in the top, middle, bottom positions. Since there are 2 - signs in the column, they will alternate with the + signs.

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>					-	+	2
<b>2</b>					+	-	3
<b>1</b>						+	1
<b>2</b>						-	2
<b>2</b>					-	+	2
	1	1	2	2	2	2	-

*Look at column 2.*

Since there are no + signs in the column, we know that the vertical dominoes must be X X.

This leaves a single square in the column, which must be -.

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>	x				-	+	2
<b>2</b>	x				+	-	3
<b>1</b>	x					+	1
<b>2</b>	x					-	2
<b>2</b>	+	-			-	+	2
	1	1	2	2	2	2	-

*Look at row 1.*

There are 5 squares without an X. We need 3 + and 2-. Since one pair is already in place, it's easy to see where the rest must go.

As we fill in row 1, we find that row 2 gets taken care of as well.

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>	+	x	-	+	-	+	2
<b>2</b>	-	x	+	-	+	-	3
<b>1</b>		x				+	1
<b>2</b>		x				-	2
<b>2</b>	+	-			-	+	2
	1	1	2	2	2	2	-

*Look at row 3.*

We have the single + we need. We need a single - as well, and there is only one place it can go. Everything else must be an X.

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>	+	x	-	+	-	+	2
<b>2</b>	-	x	+	-	+	-	3
<b>1</b>	x	x	-	x	x	+	1
<b>2</b>	x	x	+			-	2
<b>2</b>	+	-			-	+	2
	1	1	2	2	2	2	-

*Look at row 4.*

We need another + and another -. That's easy!

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>	+	x	-	+	-	+	2
<b>2</b>	-	x	+	-	+	-	3
<b>1</b>	x	x	-	x	x	+	1
<b>2</b>	x	x	+	-	+	-	2
<b>2</b>	+	-			-	+	2
	1	1	2	2	2	2	-

*Look at row 5.*

We've got everything we need, so we just have to fill in the Xs.

<b>+</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>3</b>	+	x	-	+	-	+	2
<b>2</b>	-	x	+	-	+	-	3
<b>1</b>	x	x	-	x	x	+	1
<b>2</b>	x	x	+	-	+	-	2
<b>2</b>	+	-	x	x	-	+	2
	1	1	2	2	2	2	-