

Mark's Magic Square Card Cube Puzzle

1. Contents

Enclosed with this pack, you will find:

- Instructions for constructing a Card Cube, using six identically-sized pieces of card
- A number of identical sheets containing the template for the Magic Square Card Cube Puzzle.

2. Preparation

First, you need to take the template sheet and cut around the outer edge of the heavy black border.

Once you have separated the 18 x 8 table from its border, you need to cut along the internal heavy black lines. This will separate the table into six smaller 6 x 4 tables.

Next, fold the left hand column and the right hand column behind the rest of the card and make firm creases, as these will be critical to the successful construction of the Card Cube.

At this point, you have now completed at Step 5 of the enclosed Card Cube Instructions and you are ready to start The Puzzle.

3. The Puzzle

Having separated and creased the six pieces of card, the challenge is to construct a Card Cube (starting at Step 6 of the enclosed Card Cube Instructions) so that each of the six faces is a Magic Square that adds up to 34 along:

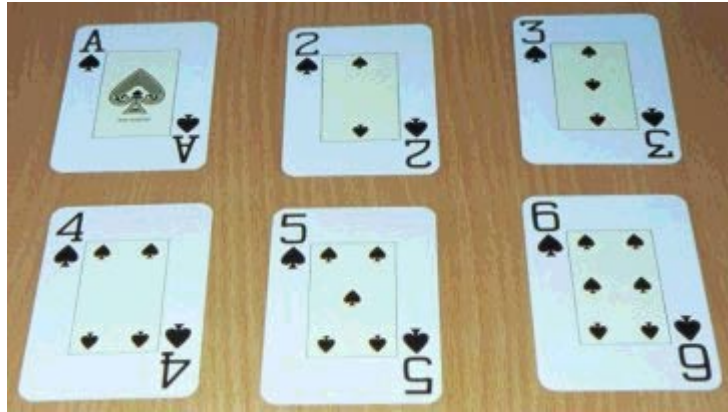
- each row
- each column
- each of the two main diagonals.

INSTRUCTIONS FOR MAKING A CARD CUBE

Step 1

First of all, assemble six similarly sized cards.

In this example, I am using the Ace to Six of Spades, from a Bridge-sized deck of cards.



Step 2

Next, take **two** of the cards - the Ace and Two of Spades in this example - and lay them as shown in the photograph, i.e. **back to back**, with the two cards being **at right angles** to each other. (Note that the only reason for the cards being back to back is because the Card Cube is being made so that the faces of all six cards are showing.)



It is **important** that the cards are centred as closely as possible, as this will then ensure that each of the "flaps" that you are about to create is the same size. Depending on the cards you are using, the pattern on the back of the cards can help you to line them up properly.

Step 3

Now fold **each** of the two "flaps" on the face down card (i.e. the Two of Spades) that "stick out" **over and on top** of the face up card (i.e. the Ace of Spades).

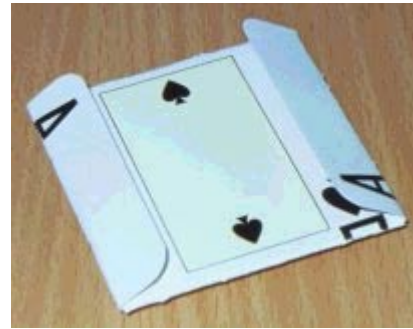


INSTRUCTIONS FOR MAKING A CARD CUBE

Step 4

Turn the two cards over.

Now fold **each** of the two "flaps" on the card that is **now** face down (i.e. the Ace of Spades) that "stick out" **over and on top of** the card that is **now** face up (i.e. the Two of Spades).



Step 5

Repeat Steps 2 - 4 for **each** of the remaining two pairs of cards.

Then, separate each of the six cards **as carefully as you can**, since you want the creases to be as firm as possible. (It also might help if you reinforce each crease as well, after you have separated the cards.)



Step 6

It is now time to start constructing the Card Cube.

Take the **first** card and either lay it on the table, or hold it in your hand, so that the "flaps" are aligned to the **left and right** (i.e. as opposed to the front and back).



INSTRUCTIONS FOR MAKING A CARD CUBE

Step 7

Next, take the **second** card and place it "**in front**" of the first card (i.e. on the side **furthest** from you).

The **lowermost** "flap" of this second card must go **underneath** the first card.



Step 8

Take the **third** card and place it "**to the back of**" the first card (i.e. on the side **nearest** you).

The **lowermost** "flap" of this third card must also go **underneath** the first card.



Step 9

The **fourth** card goes down the **right hand side** of the first card.

It must be slotted in so that it goes **inside** the right hand "flap" of the first card, but **also** so that the two "flaps" of this fourth card go **outside** (i.e. to the front and to the back, respectively) of the second and third cards.



-- Fold --

9	4	14	7	7	12	13	2
	5	11			6	3	
	10	8			15	10	
	15	1			1	8	
	4	14			12	13	
16	5	11	2	9	6	3	16
7	12	13	2	9	3	9	6
	5	11			5	11	
	10	8			10	8	
	15	1			15	1	
	4	14			4	14	
2	13	12	7	6	9	3	16
9	4	14	7	16	3	9	6
	5	11			6	3	
	10	8			15	10	
	15	1			1	8	
	4	14			12	13	
16	5	11	2	2	13	12	7

-- Fold --

-- Fold --

-- Fold --

-- ✂ --

-- ✂ --

-- Fold --

-- Fold --

-- Fold --

-- Fold --

-- ✂ --

-- ✂ --

-- Fold --

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-- Fold --

-- Fold --	9	4	14	7	7	12	13	2	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	9	6	3	16	
-- ✂ --									-- ✂ --
-- Fold --	7	12	13	2	9	3	9	6	-- Fold --
		5	11			5	11		
		10	8			10	8		
		15	1			15	1		
-- Fold --		4	14			4	14		-- Fold --
	2	13	12	7	6	9	3	16	
-- ✂ --									-- ✂ --
-- Fold --	9	4	14	7	16	3	9	6	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	2	13	12	7	

-- Fold --	9	4	14	7	7	12	13	2	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
-- ✂ --	16	5	11	2	9	6	3	16	-- ✂ --
-- Fold --	7	12	13	2	9	3	9	6	-- Fold --
		5	11			5	11		
		10	8			10	8		
		15	1			15	1		
-- Fold --		4	14			4	14		-- Fold --
-- ✂ --	2	13	12	7	6	9	3	16	-- ✂ --
-- Fold --	9	4	14	7	16	3	9	6	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	2	13	12	7	

-- Fold --	9	4	14	7	7	12	13	2	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	9	6	3	16	
-- ✂ --									-- ✂ --
-- Fold --	7	12	13	2	9	3	9	6	-- Fold --
		5	11			5	11		
		10	8			10	8		
		15	1			15	1		
-- Fold --		4	14			4	14		-- Fold --
	2	13	12	7	6	9	3	16	
-- ✂ --									-- ✂ --
-- Fold --	9	4	14	7	16	3	9	6	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	2	13	12	7	

-- Fold --	9	4	14	7	7	12	13	2	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	9	6	3	16	
-- ✂ --									-- ✂ --
-- Fold --	7	12	13	2	9	3	9	6	-- Fold --
		5	11			5	11		
		10	8			10	8		
		15	1			15	1		
-- Fold --		4	14			4	14		-- Fold --
	2	13	12	7	6	9	3	16	
-- ✂ --									-- ✂ --
-- Fold --	9	4	14	7	16	3	9	6	-- Fold --
		5	11			6	3		
		10	8			15	10		
		15	1			1	8		
-- Fold --		4	14			12	13		-- Fold --
	16	5	11	2	2	13	12	7	