



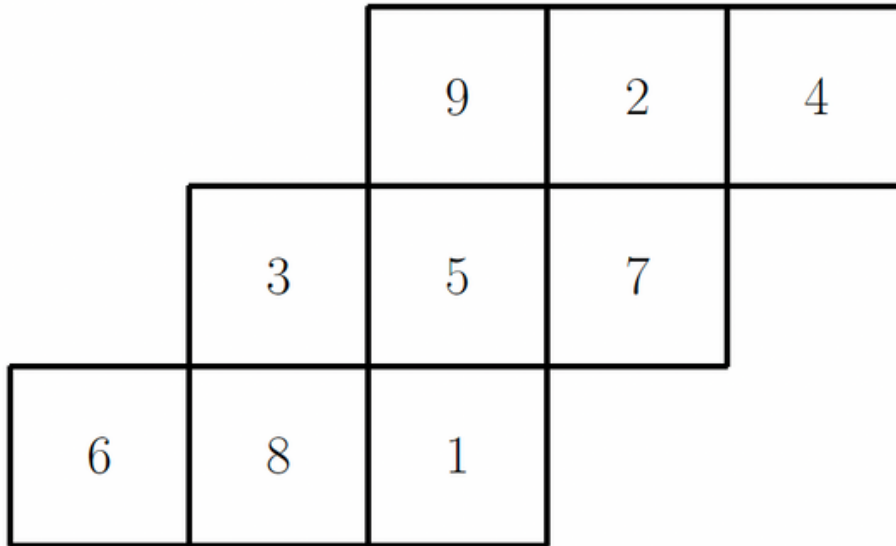
Défis mathématiques

50 DÉFIS

SOLUTIONS

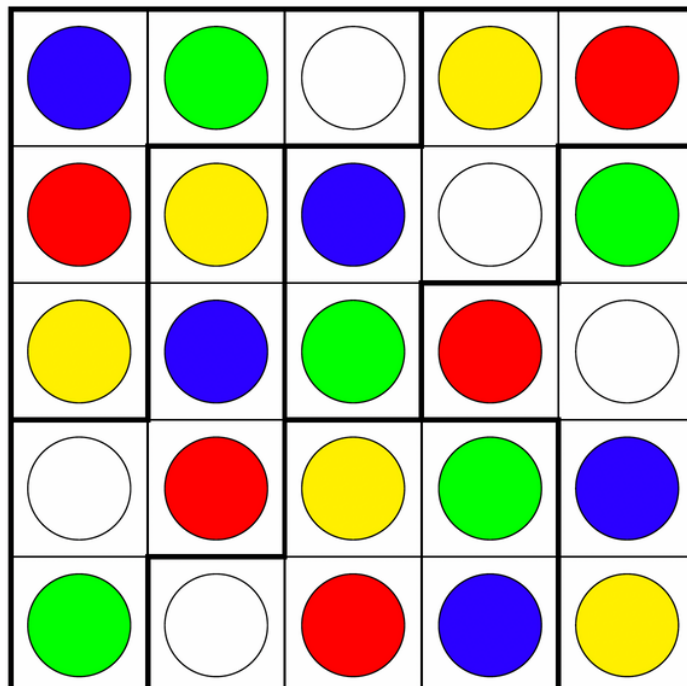
1

L'ESCALIER



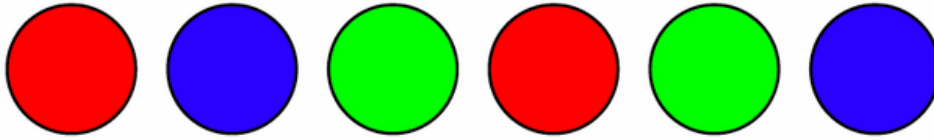
2

CINQ COULEURS ET CINQ ZONES



3

LES SIX BOULES



Il y a une autre solution, obtenue par demi-tour.

4

CARRÉ LATIN

En plaçant sur la première ligne les lettres *A*, *B*, *C* et *D* dans cet ordre, il y a deux solutions :

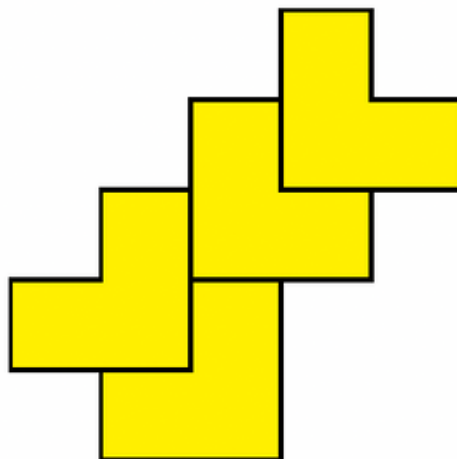
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
<i>C</i>	<i>D</i>	<i>A</i>	<i>B</i>
<i>D</i>	<i>C</i>	<i>B</i>	<i>A</i>
<i>B</i>	<i>A</i>	<i>D</i>	<i>C</i>

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
<i>D</i>	<i>C</i>	<i>B</i>	<i>A</i>
<i>B</i>	<i>A</i>	<i>D</i>	<i>C</i>
<i>C</i>	<i>D</i>	<i>A</i>	<i>B</i>

Toute grille équivalente à l'une de ces deux grilles est solution.

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RECOUVREMENT



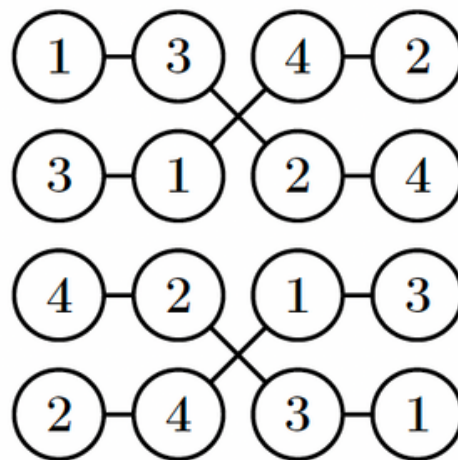
6

LES SIROPS



7

STRIMKO (1)

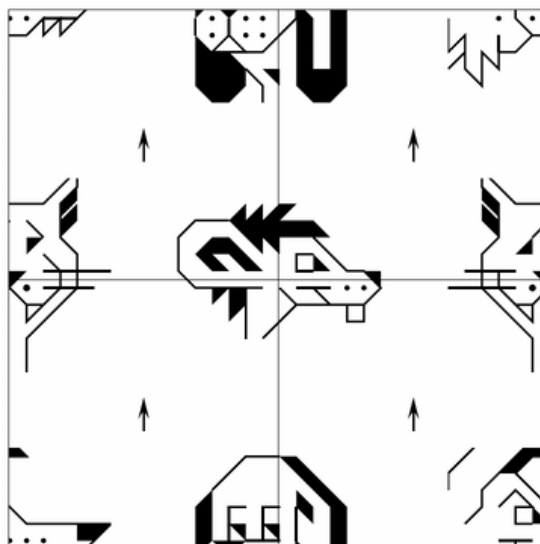


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QUATRE ANIMAUX

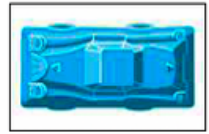
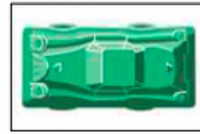
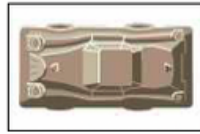
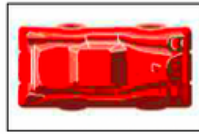
Voici la solution pour la souris.

Des inversions de lignes et de colonnes permettent d'obtenir les trois autres animaux.



9

RANGEMENT DE VOITURES



10

GARÇON, L'ADDITION !

$$1 + 3 = 4$$

$$1 + 3 = 4$$

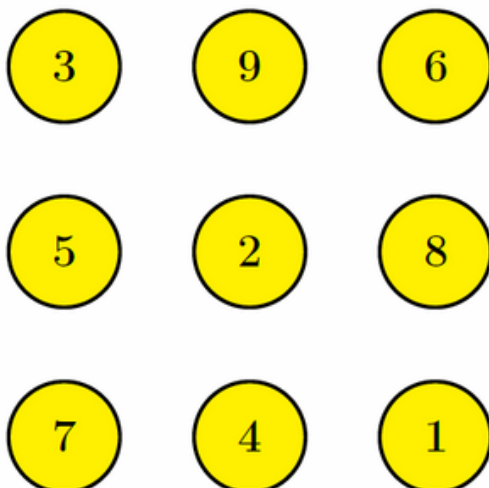
$$2 + 2 = 4$$

$$1 + 2 = 3$$

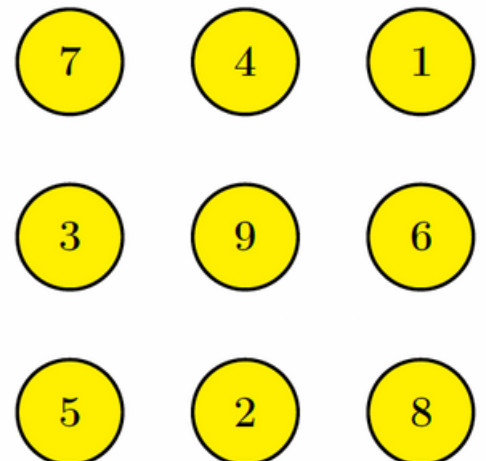
11

ORIENTATION

Solution 1



Solution 2



QUELLES FAMILLES !

On se sert du carré bilatin orthogonal d'ordre 4 solution :

A 1	B 2	C 3	D 4
C 4	D 3	A 2	B 1
D 2	C 1	B 4	A 3
B 3	A 4	D 1	C 2

Toute grille équivalente à cette grille est solution.

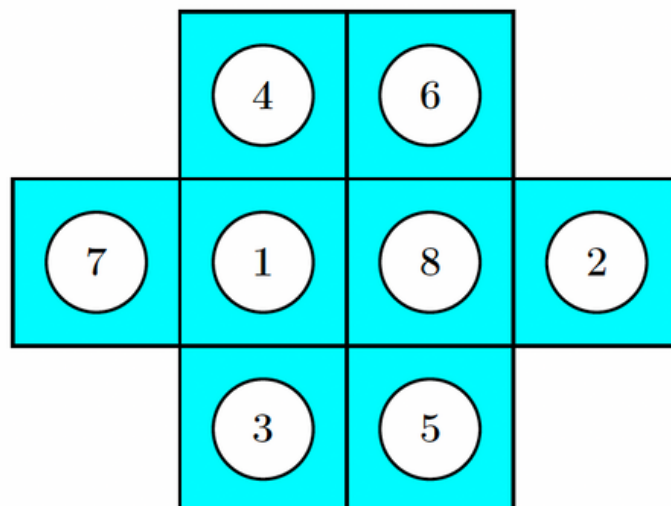
On peut, par exemple, choisir :

- d'une part, $(A, B, C, D) = (As, R, D, V)$;
- d'autre part, $(1, 2, 3, 4) = (\heartsuit, \spadesuit, \diamondsuit, \clubsuit)$.

On obtient alors :

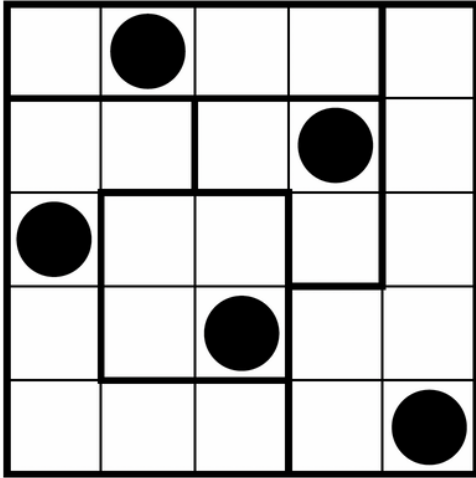
As ♡	R ♠	D ♦	V ♣
D ♣	V ♦	As ♠	R ♡
V ♠	D ♡	R ♣	As ♦
R ♦	As ♣	V ♡	D ♠

CONSÉCUTIFS NON VOISINS



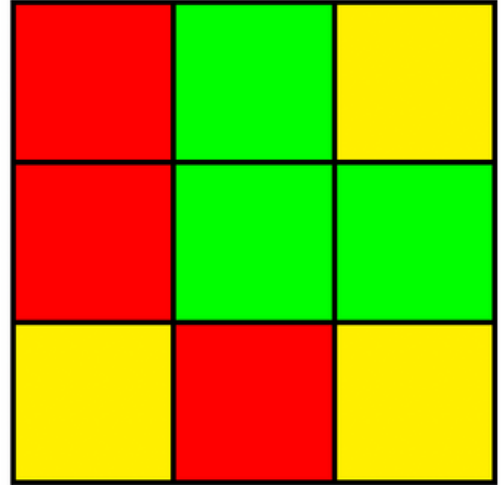
14

MOSAÏQUE



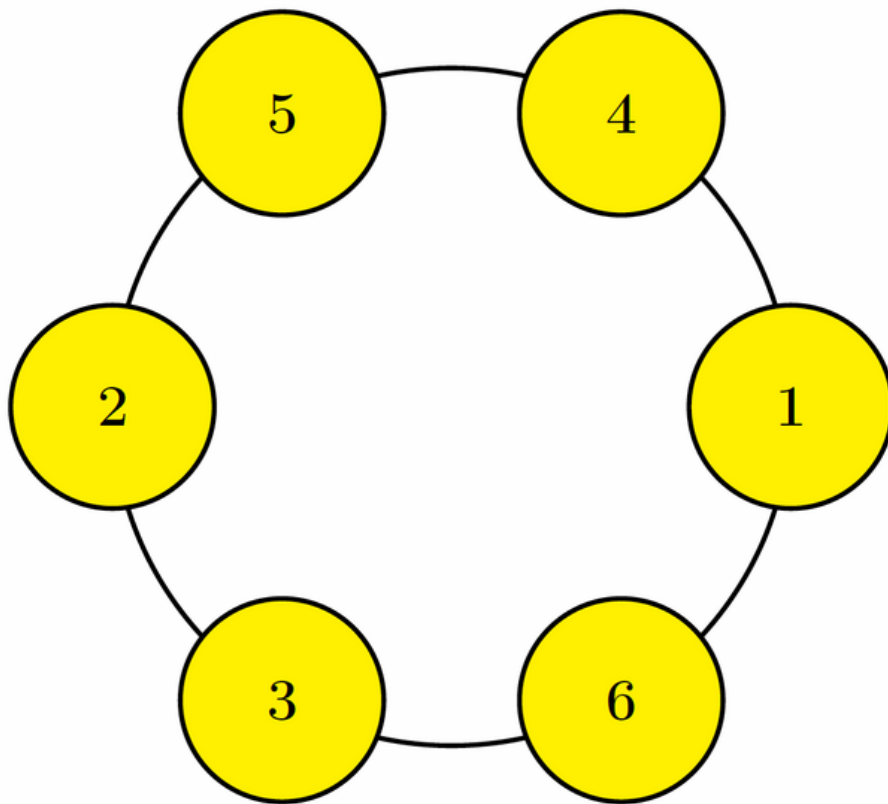
15

LE COLORIAGE DE MÉLODIE



16

QUESTION DE SOMMES



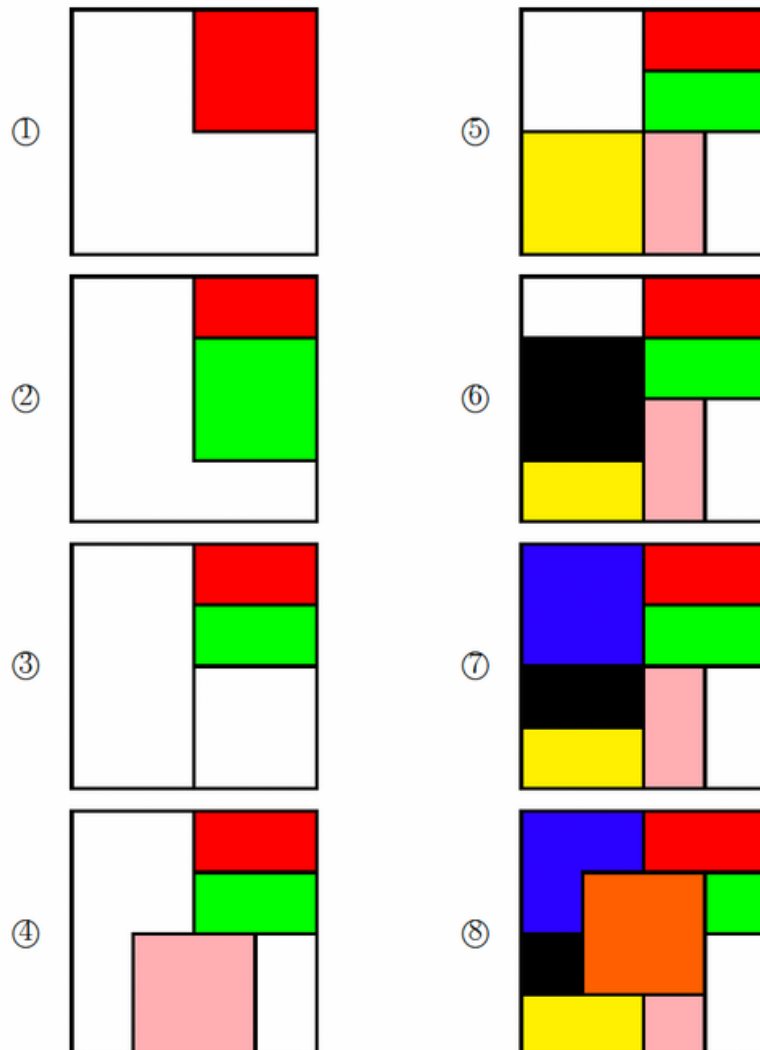
17

SUDANIMO

	A	B	C	D
1				
2				
3				
4				

18

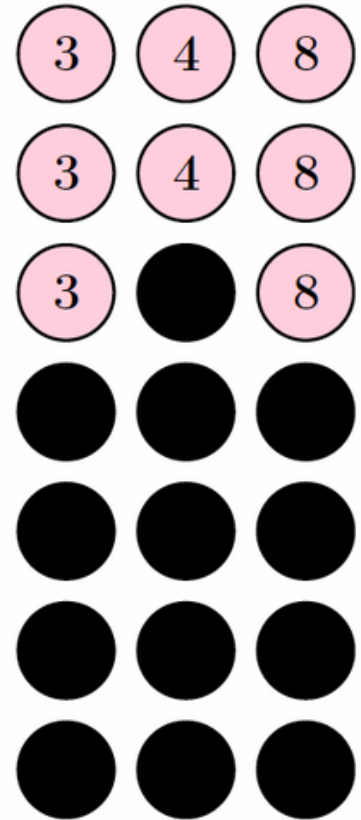
DE L'ORDRE DANS LES PLAQUES



19

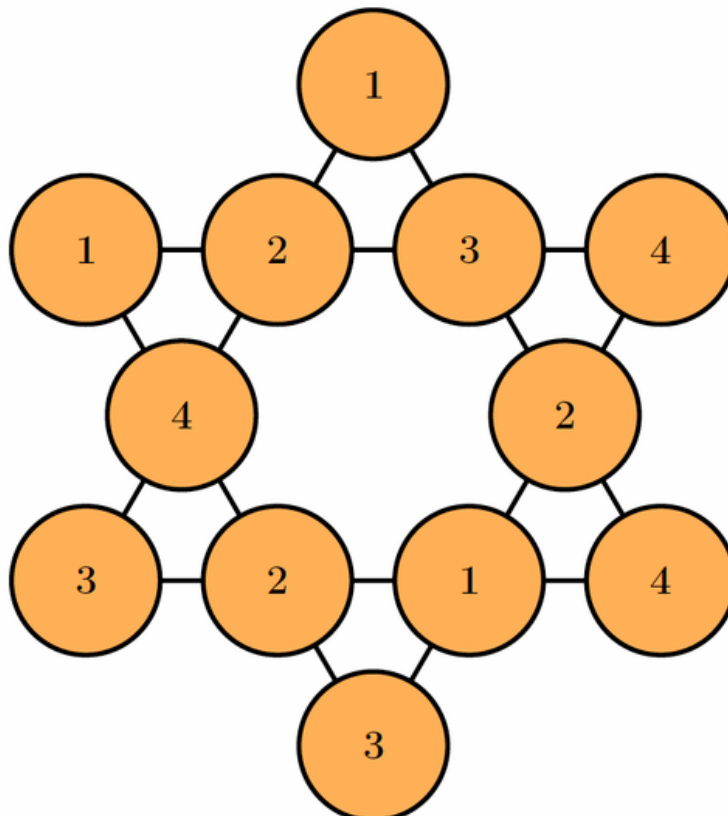
TROIS, QUATRE, HUIT

$$3 \times 3 + 2 \times 4 + 3 \times 8 = 41$$



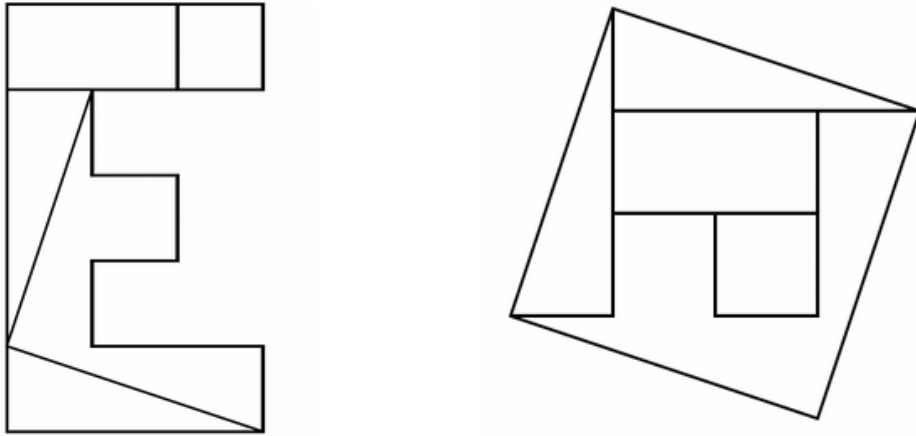
20

UNE ÉTOILE ET DES ALIGNEMENTS



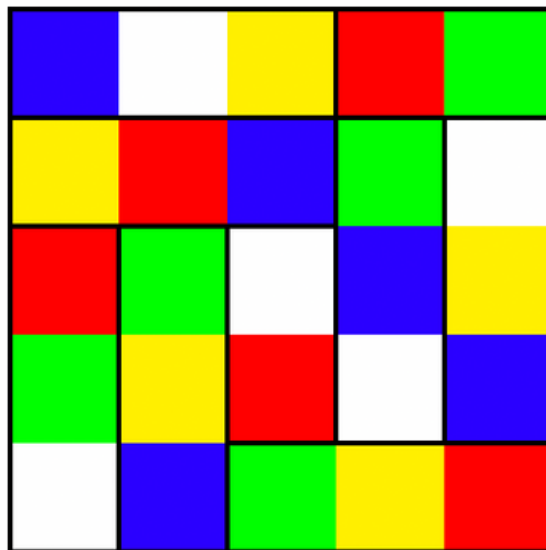
1

LA LETTRE E



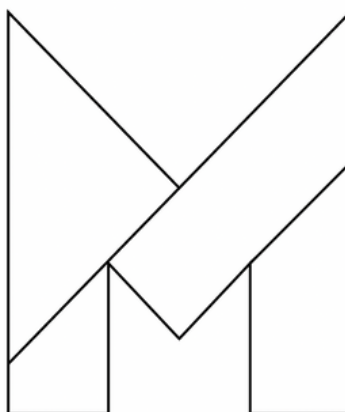
2

DES RECTANGLES COLORÉS



3

LA LETTRE M... COMME MATHS !



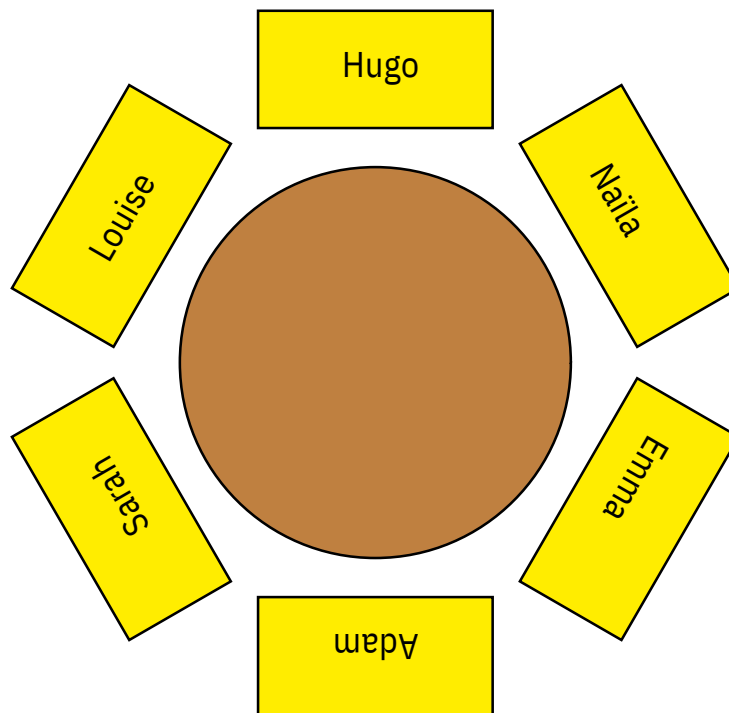
4

TROIS SOMMES EN U

2		6
7		1
3	4	5

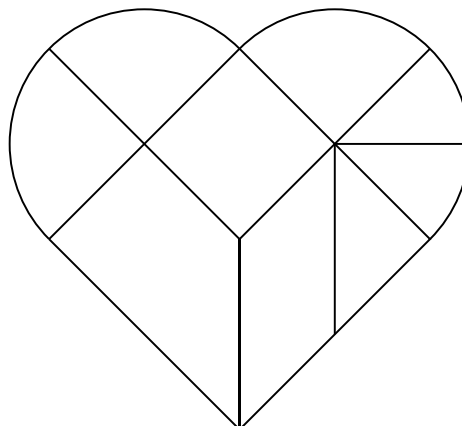
5

À TABLE !



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LE CŒUR BRISÉ (1)



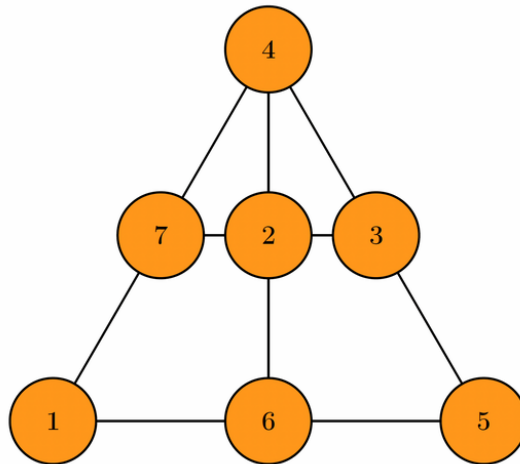


DOUBLE ET TRIPLE ! (1)

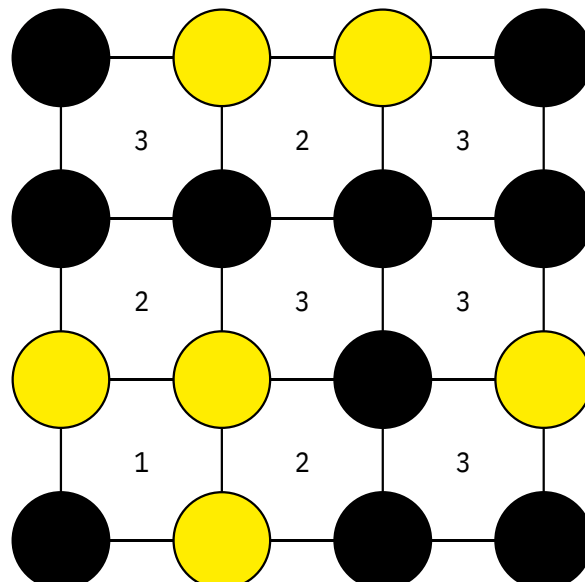
1	9	2
3	8	4
7	6	8



ALIGNEMENT DE TROIS JETONS

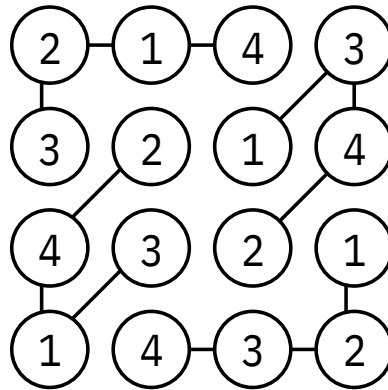


SQUARO



10

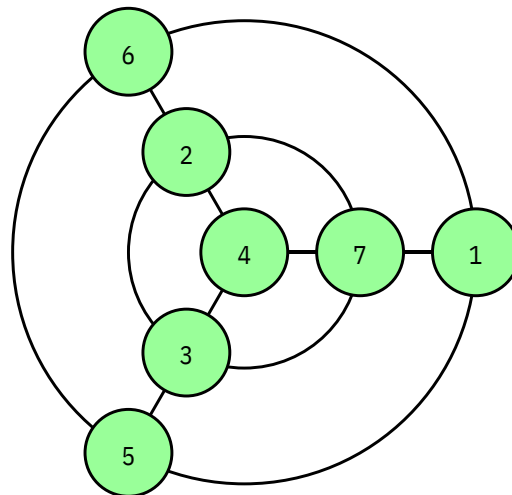
STRIMKO (2)



11

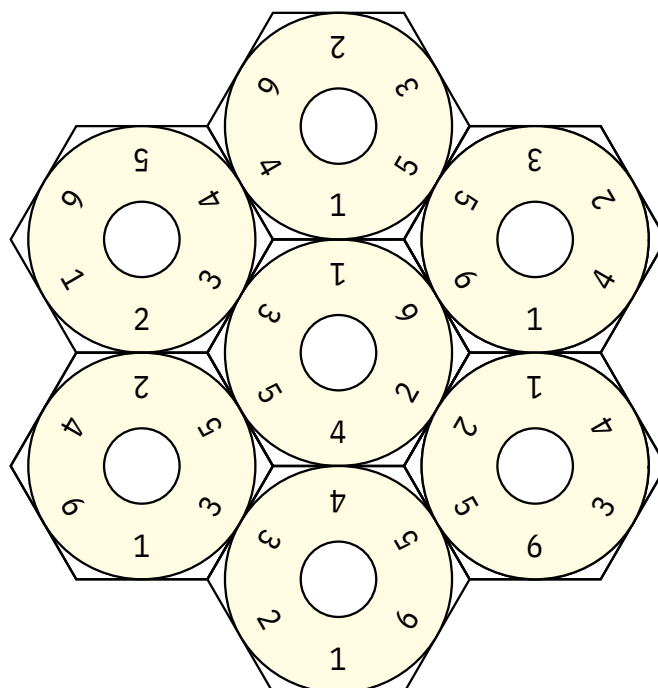
RAYONS MAGIQUES

Une solution (la somme vaut 12) :



12

LES SEPT ÉCROUS



13

LES TROIS MAÎTRESSES

Maîtresse	Céline	Dominique	Marie
Niveau	Moyenne section	Grande section	Petite section
Activité	Chant	Relaxation	Peinture

14

LE COFFRE-FORT

8	7	6
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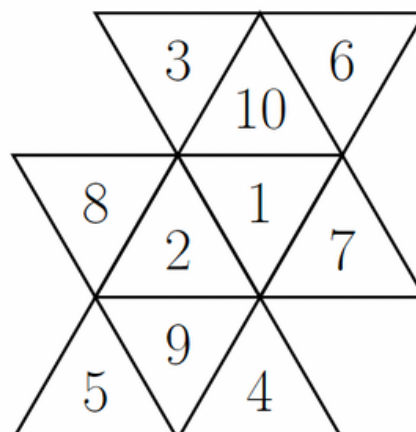
15

ANTIMORPION !

X	O	X	O	X
X	X	O	O	X
O	X	X	X	O
X	O	X	O	O
O	O	X	O	O

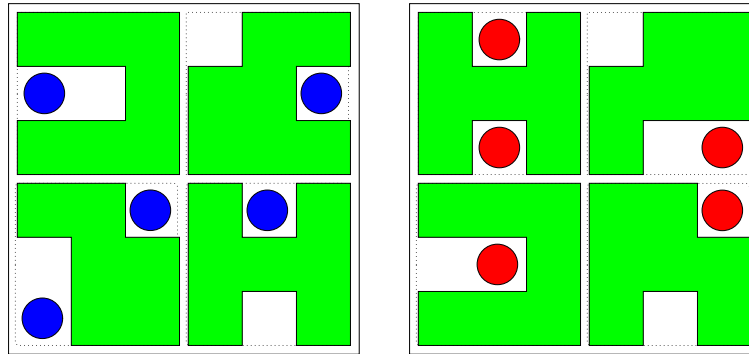
16

SOMMES ET TRIANGLES



17

SAFARI (1)



18

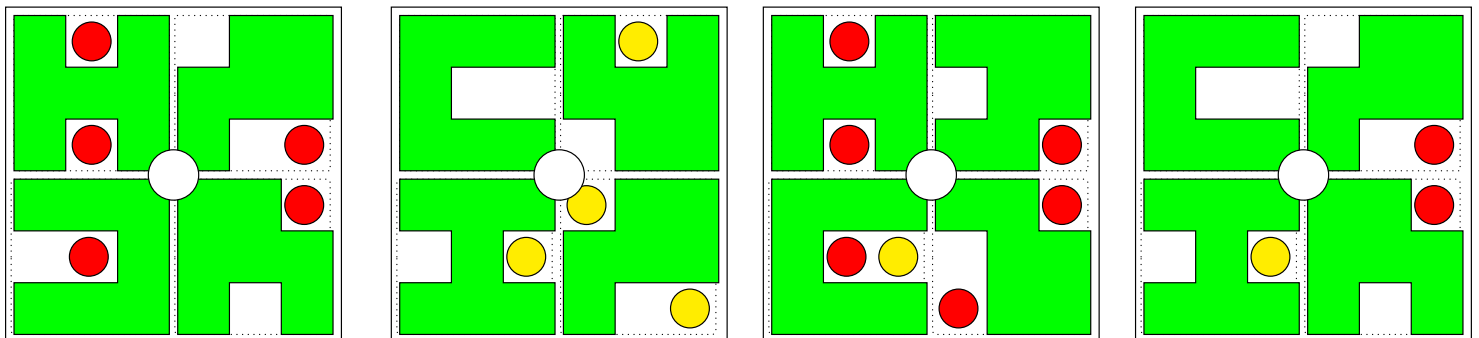
AUTO-NOMBRE

$$\text{TREIZE} = \text{T} + \text{R} + \text{E} - \text{I} - \text{Z} + \text{E}$$

$$20 + 18 + 5 - 9 - 26 + 5 = 13$$

19

SAFARI (2)



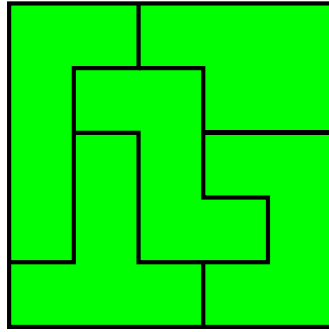
20

DÉLECTABLE

Amélie	Béatrice	Claire	Dounia
			
12	9	11	14

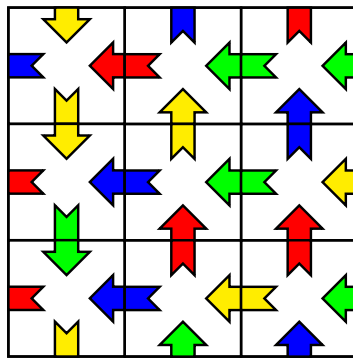
1

LES CINQ PIÈCES VERTES



2

FLÈCHES UN PEU SORCIÈRES



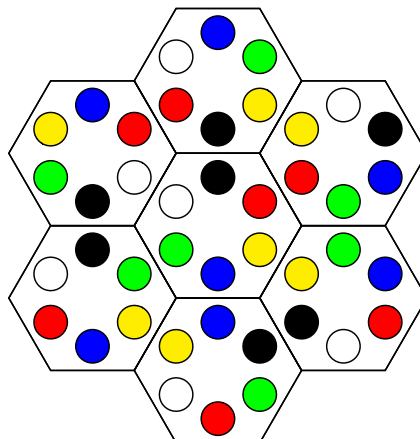
3

VOISINS ÉLOIGNÉS

9	6	8
7	2	5
2	4	3

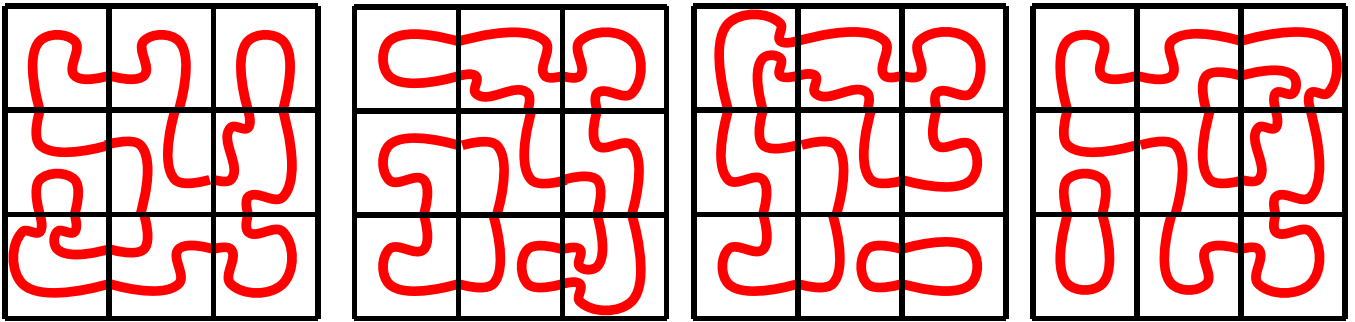
4

LES PASTILLES



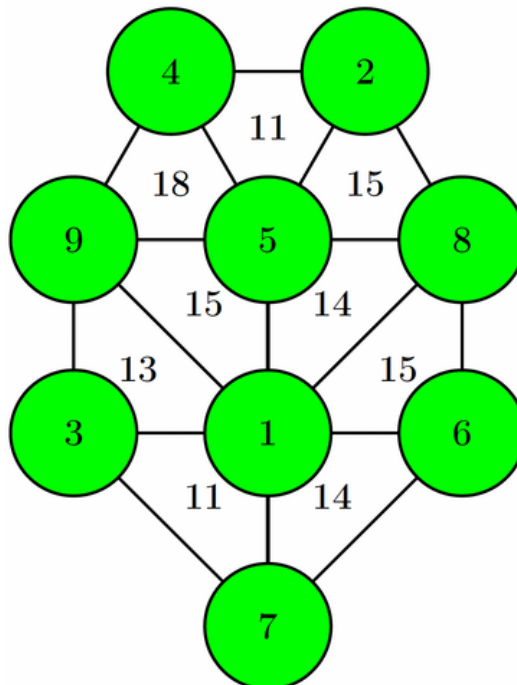
5

BOUCLES



6

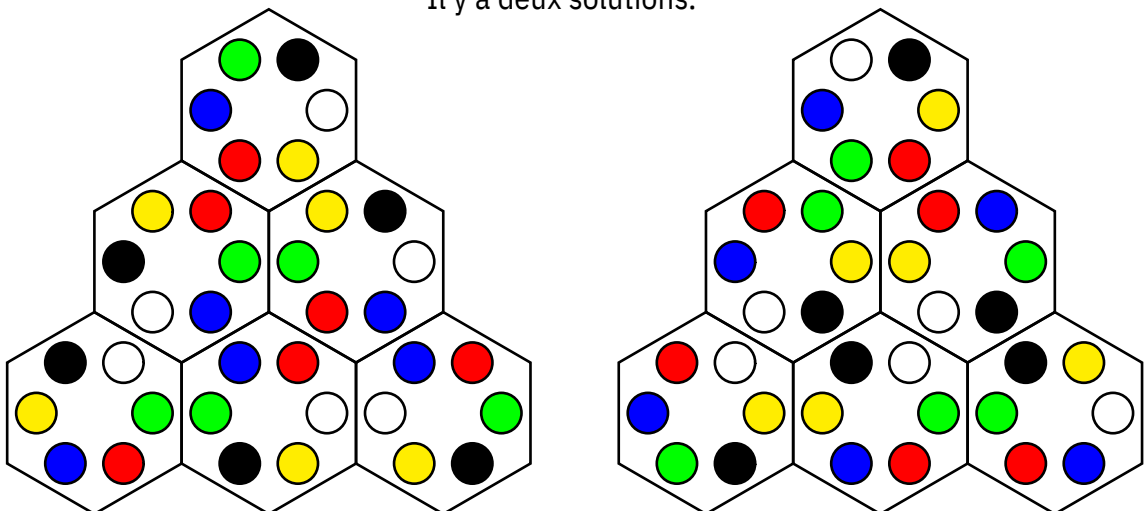
LA FIGURE MAGIQUE



7

HEXAGONES EN PYRAMIDE

Il y a deux solutions.



8

SOMMES SUR CARRÉS

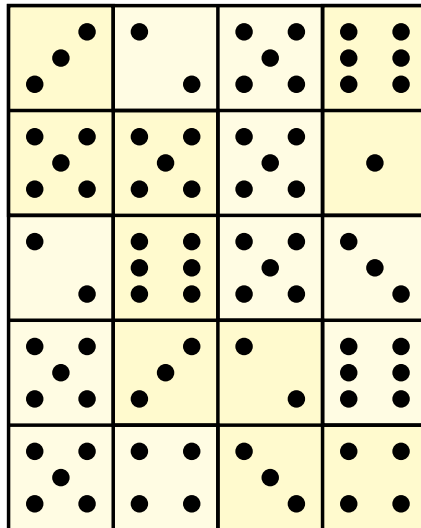
Il y a deux solutions.

1	8	2
5	9	4
6	3	7

1	6	2
8	9	7
4	3	5

9

DES DOMINOS ET DES SOMMES



10

RECTANGLES ET PENTAMINOS

