

MIDDLE
and
UPPER
Grades

EDUCATIONAL
WORKSHEETS

PRIMARY PUZZLES and PATTERNS



Easy to Challenging

BURRA
BOOKS

P R I M A R Y

P U Z Z L E S

A N D

P A T T E R N S

Primary Puzzles and Patterns

written by Greg Porich

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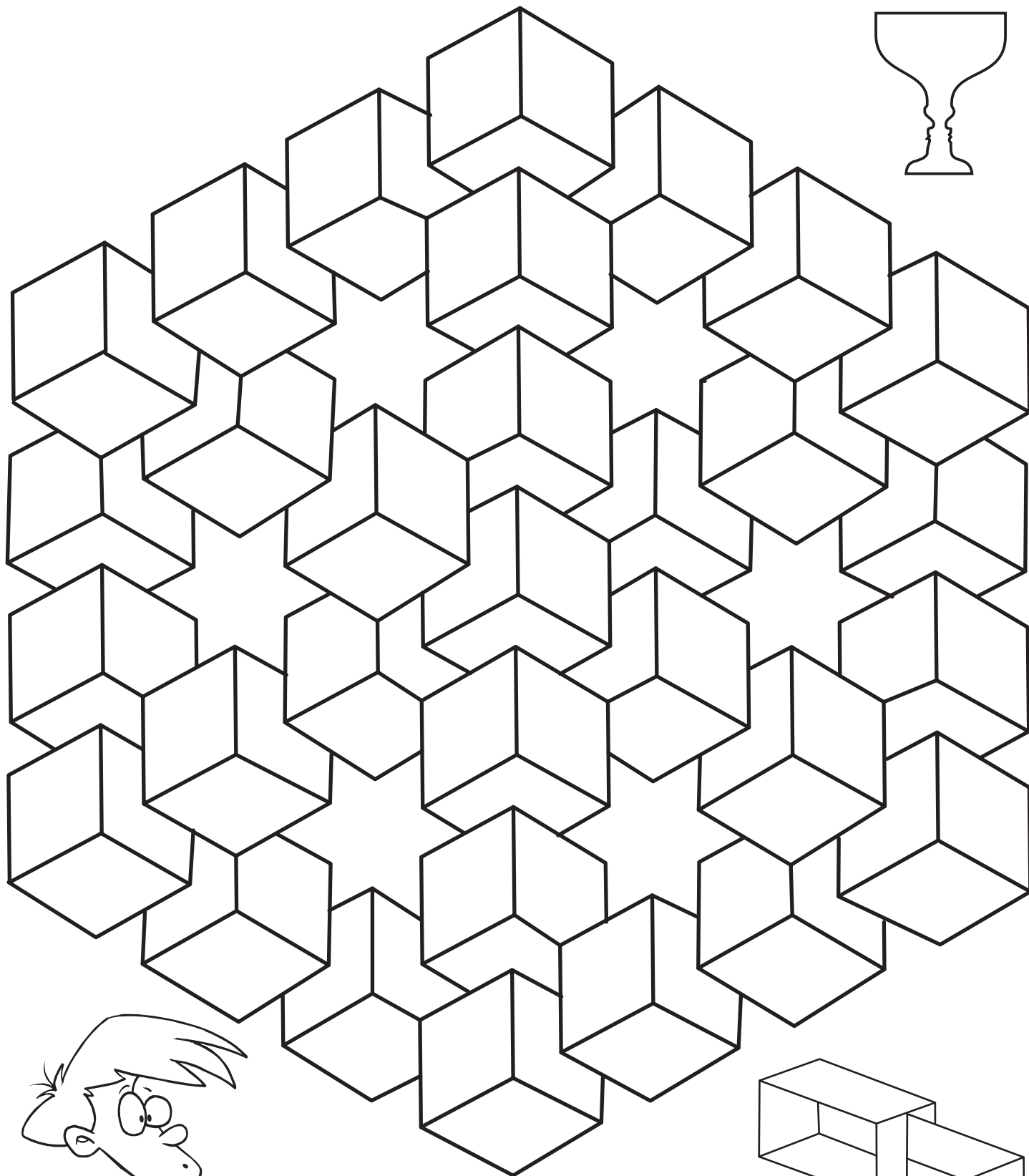
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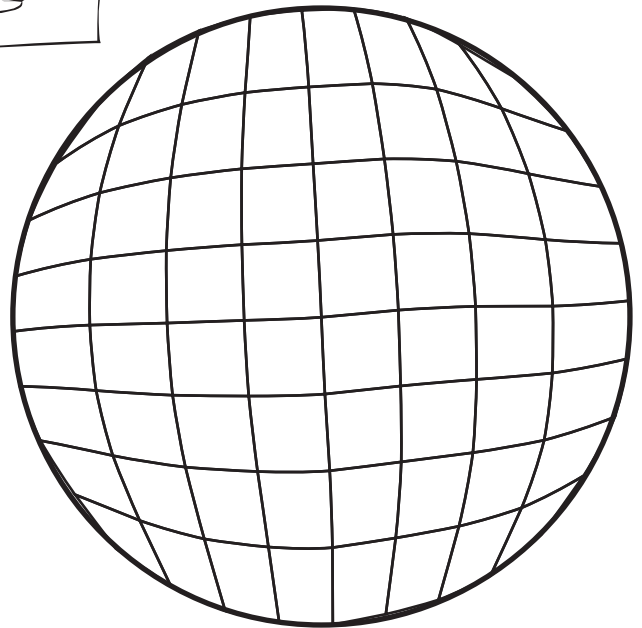
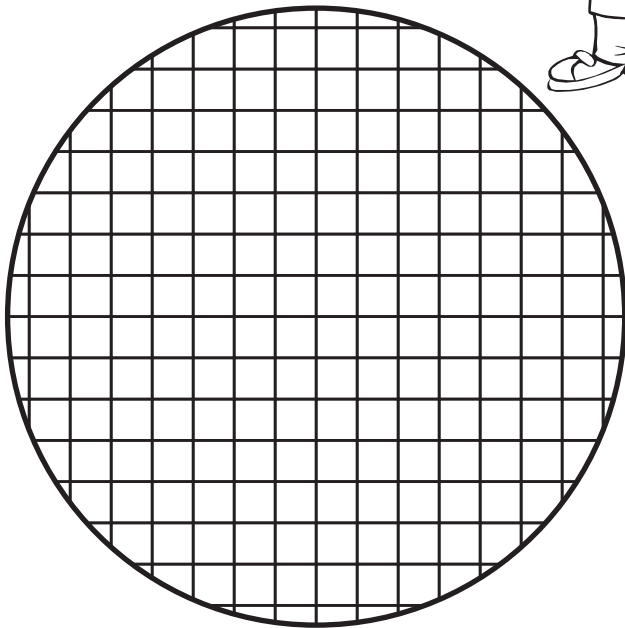
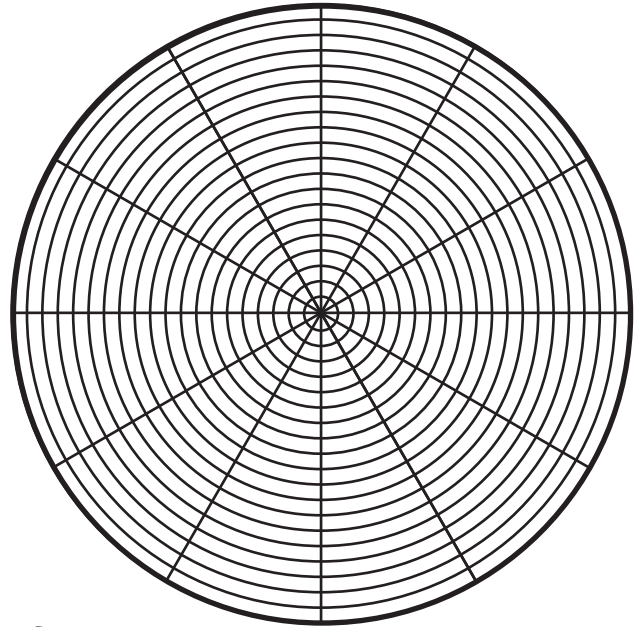
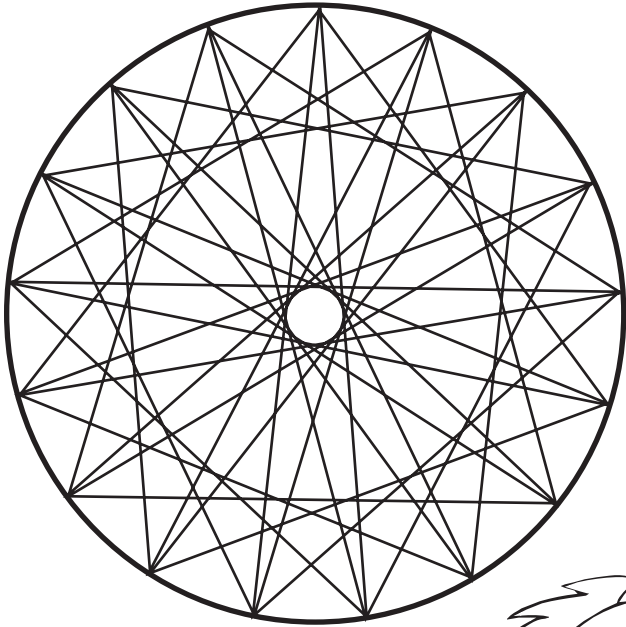


IMPOSSIBLE



*You might find this impossible to build,
but not impossible to colour.*

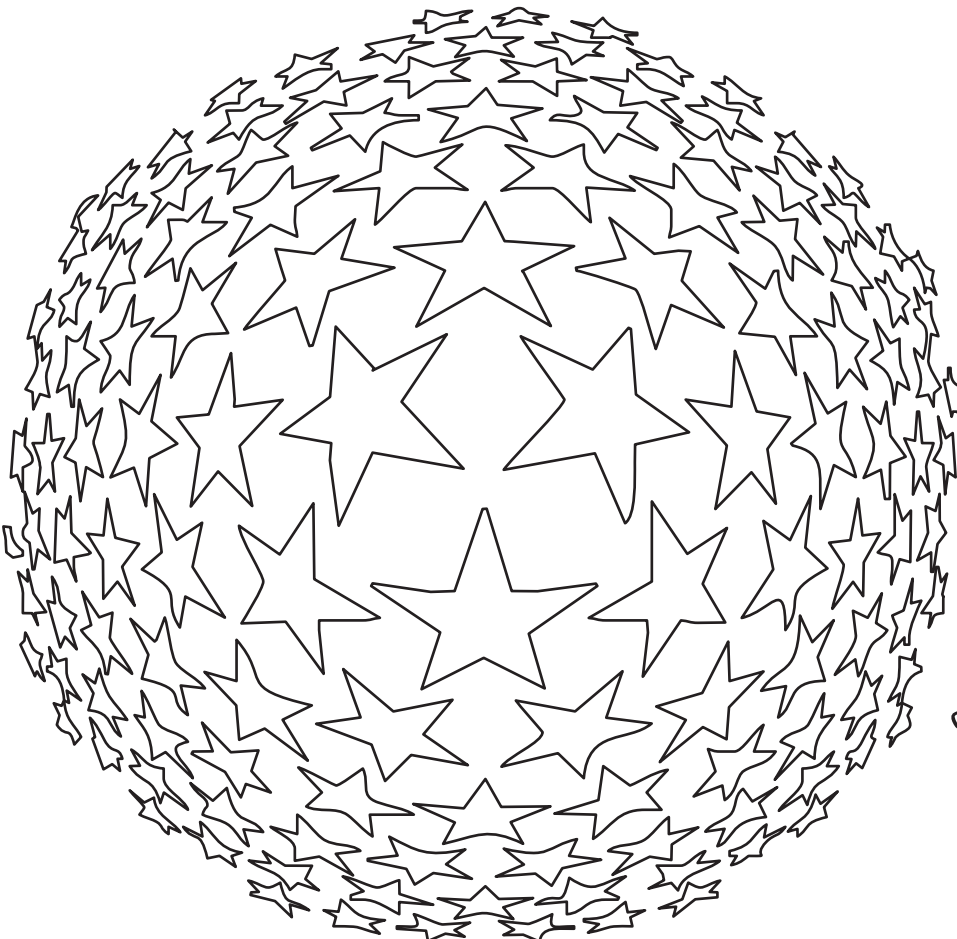
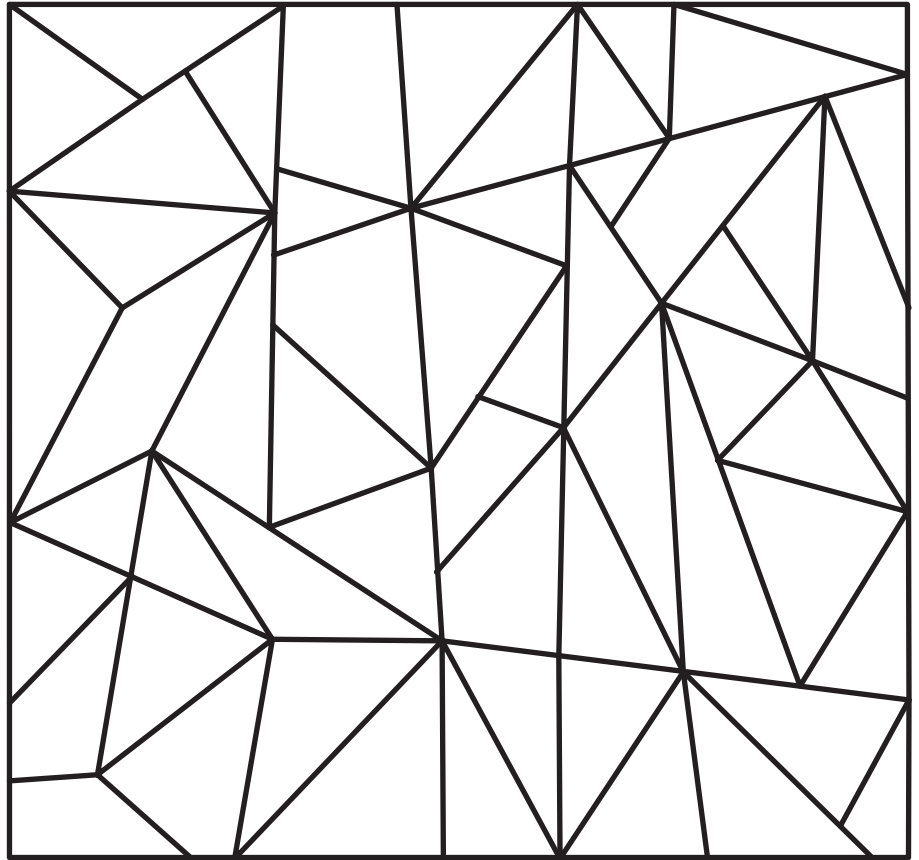
Circular Motion



Colour each of these shapes symmetrically.

STAR

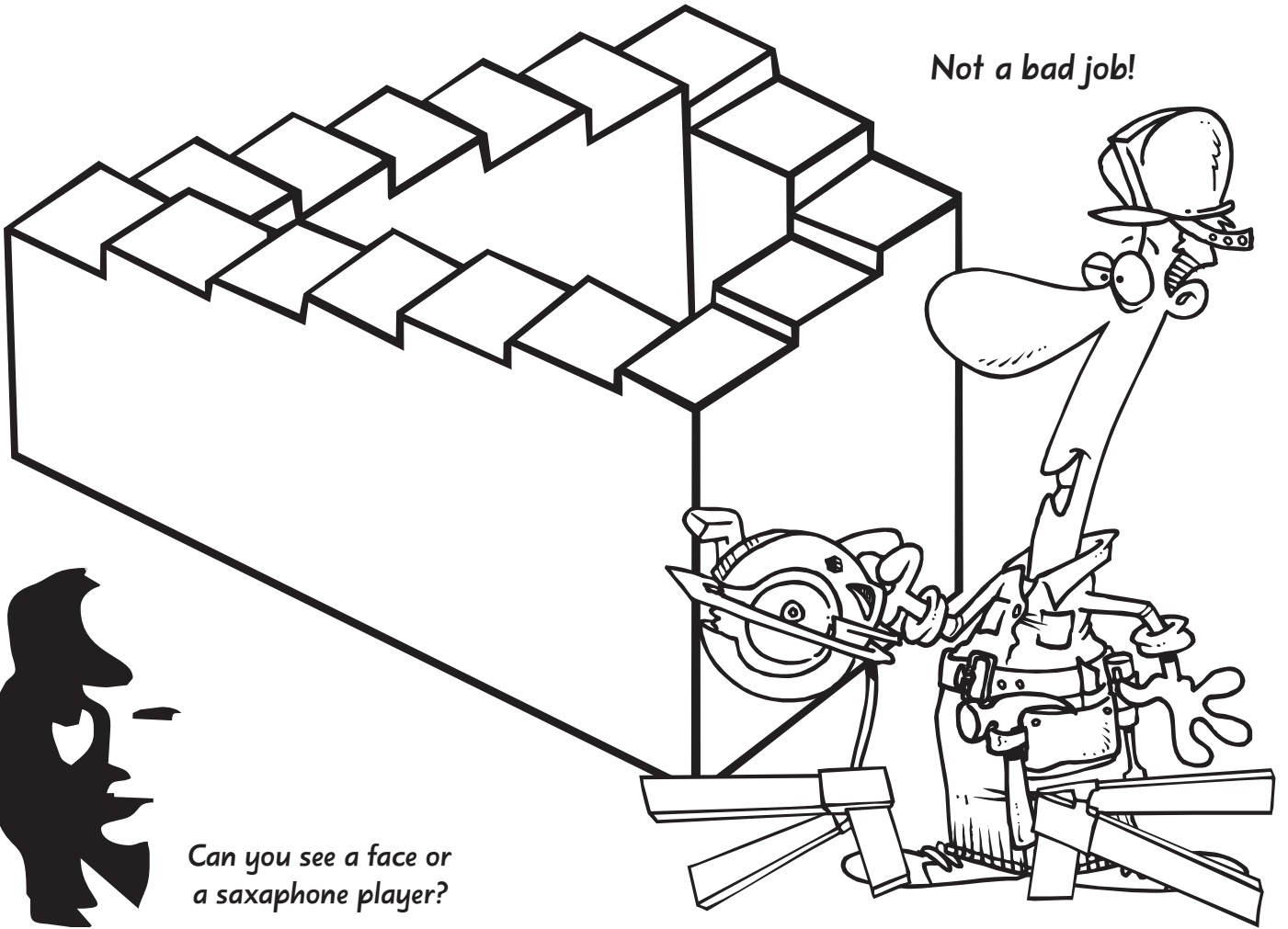
Find and colour the five-pointed star hidden in this mosaic pattern. Finish the pattern in your own colours.



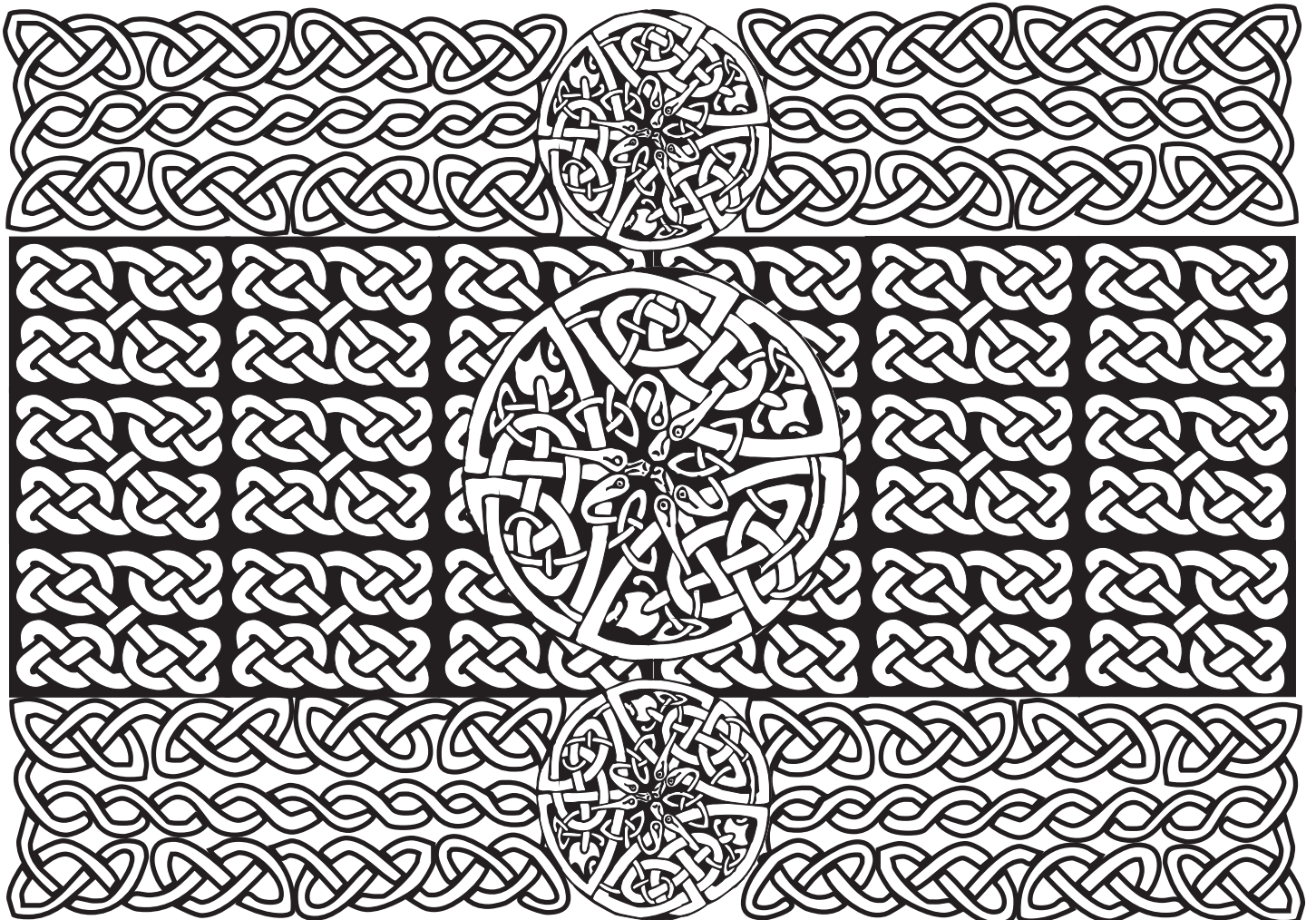
Can you colour this ball of stars in symmetrical colours?

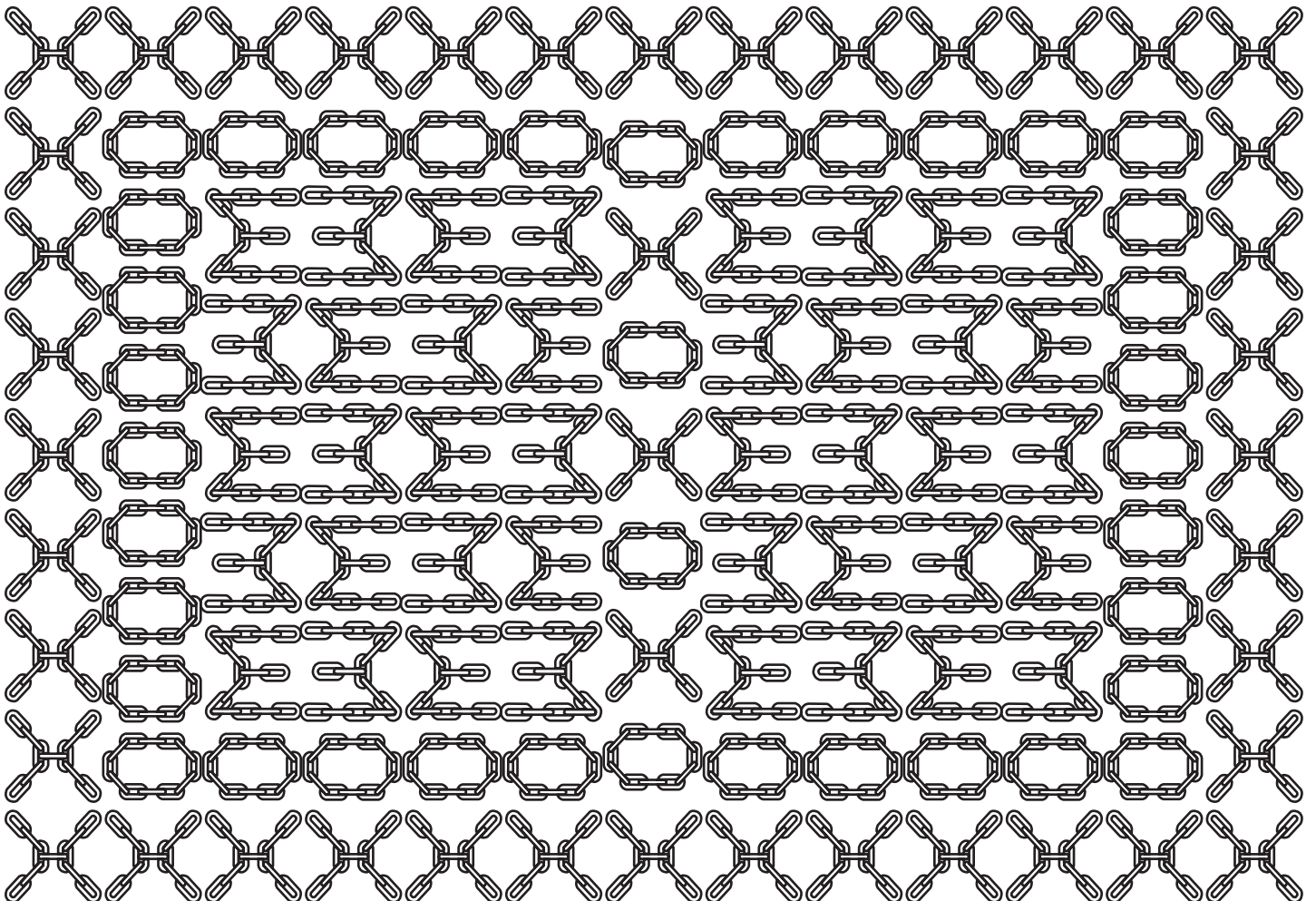
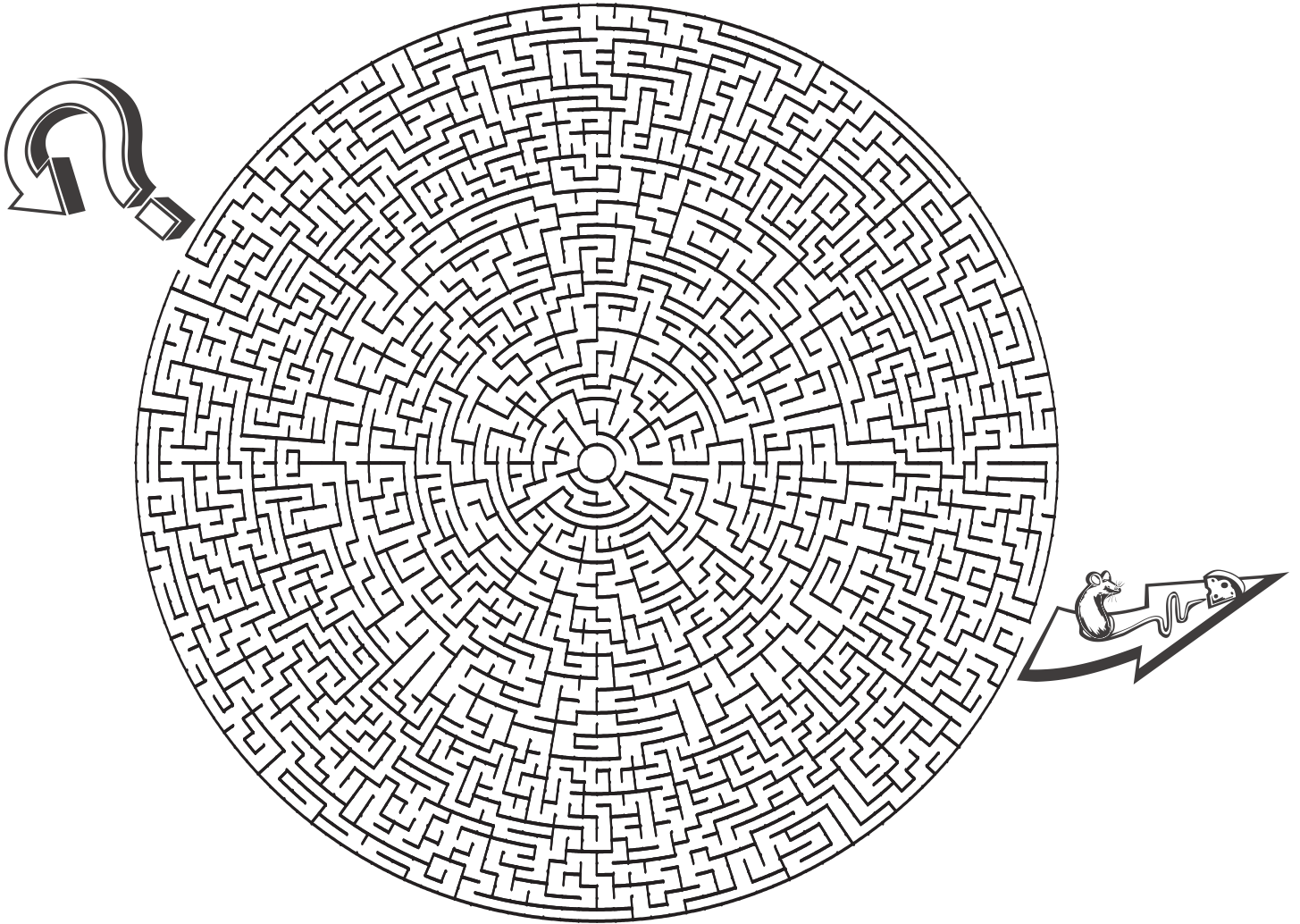


Not a bad job!



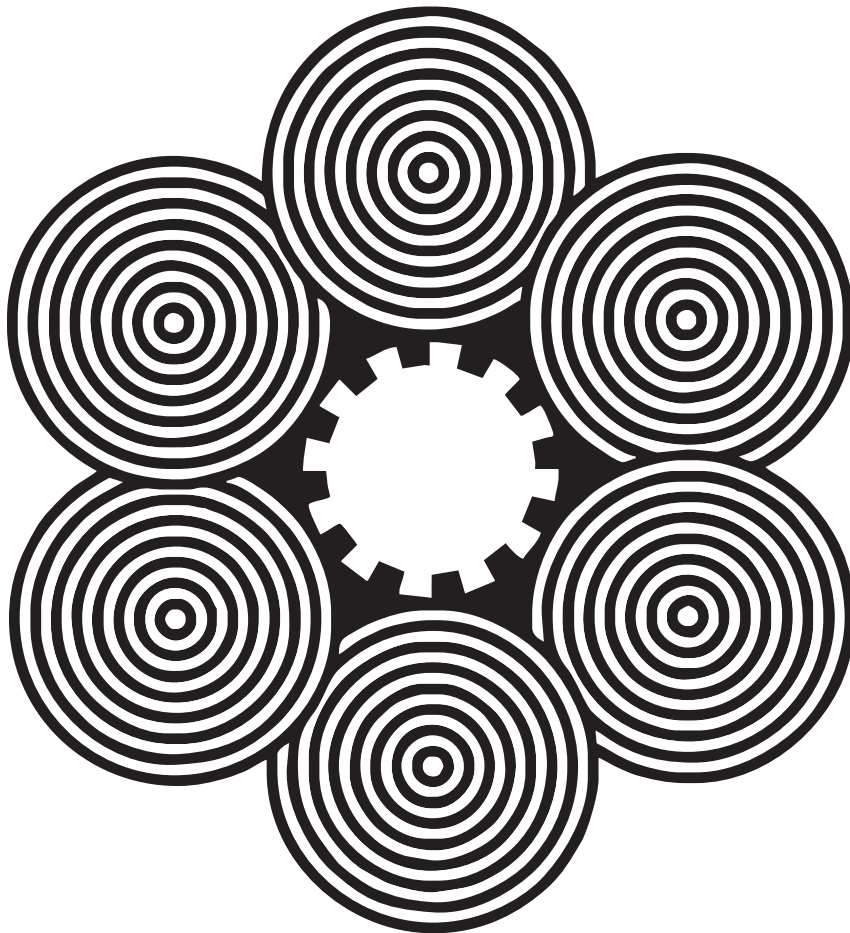
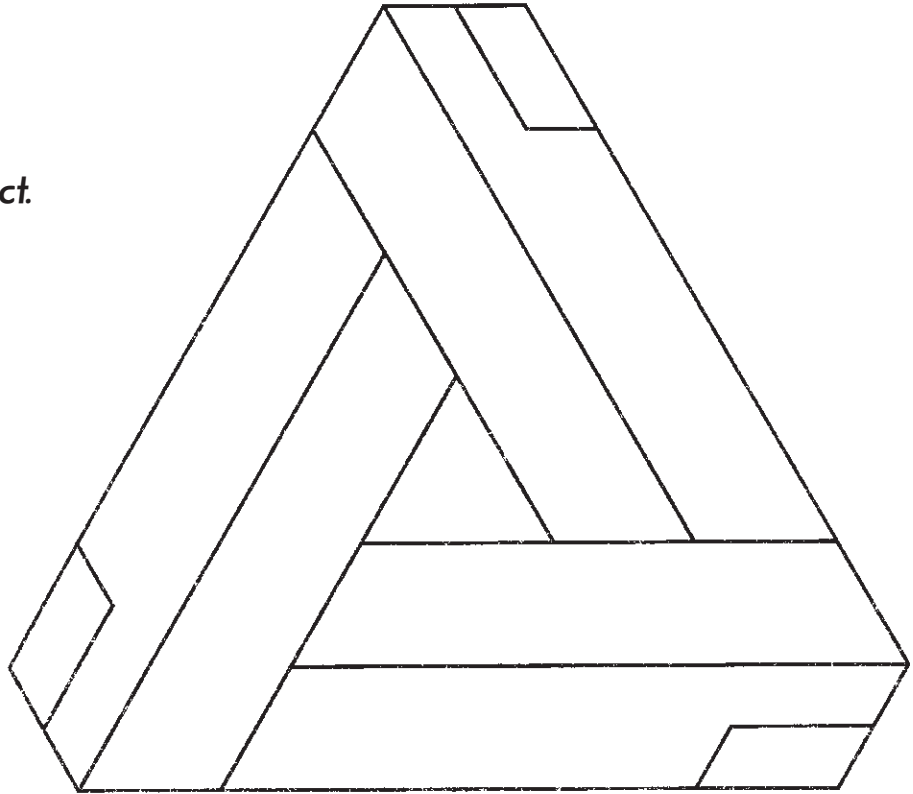
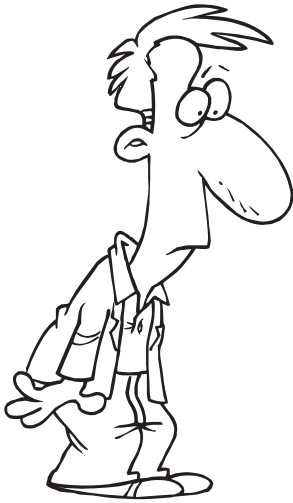
Can you see a face or a saxophone player?



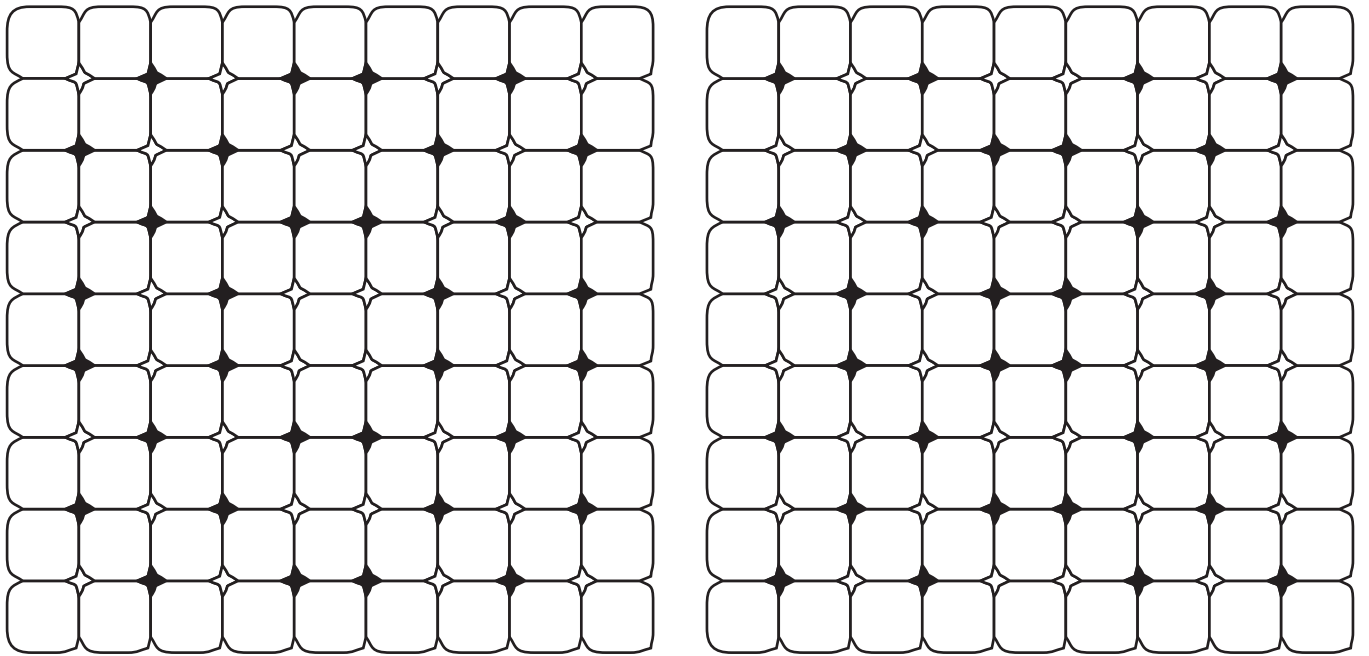


T R I C K Y

Colour this strange object.



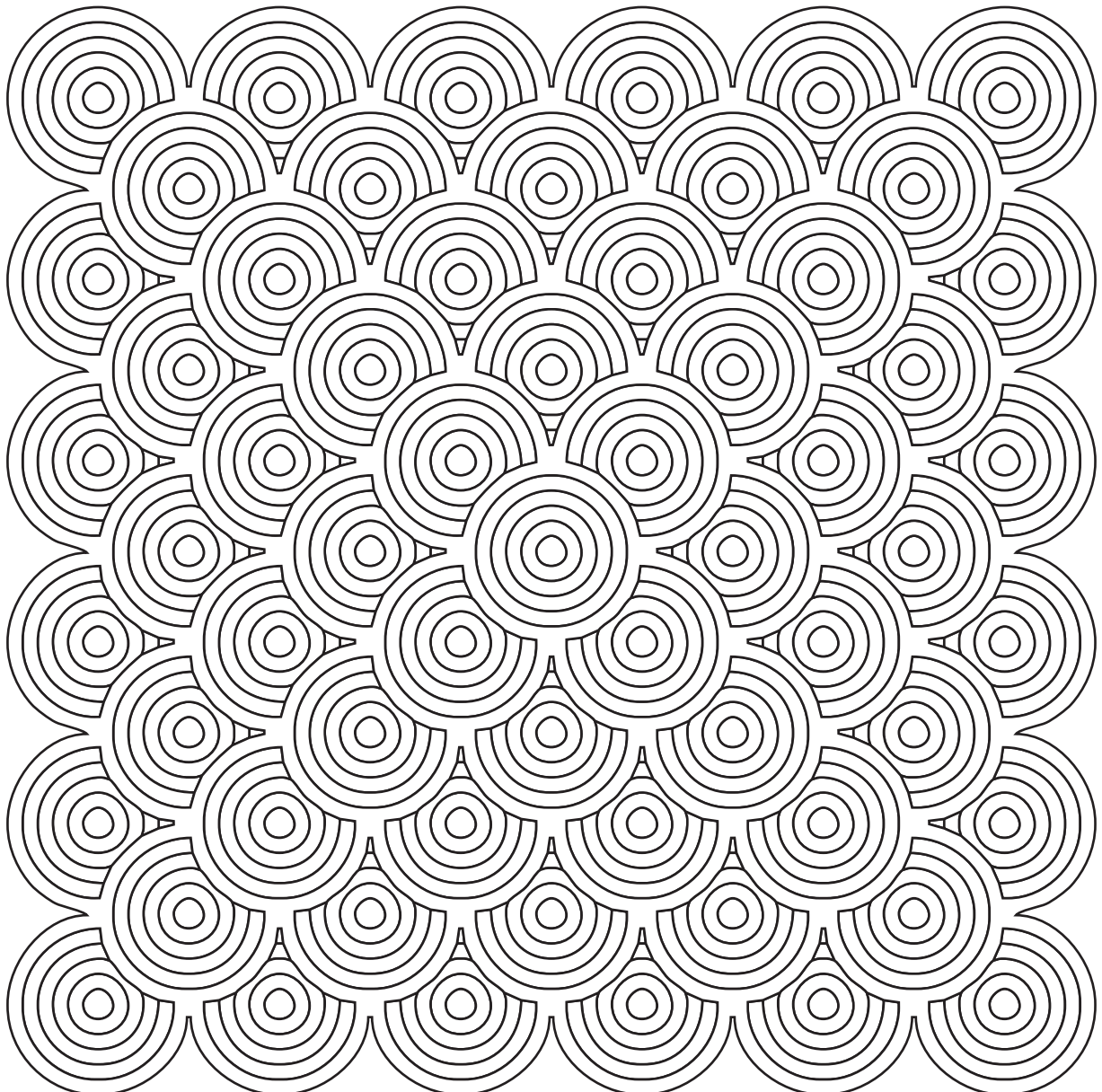
Rotate the page in a small circle. The outside six wheels appear to turn one way, while the inside cog turns the other. Add some colour and see if the effect is still there.



Colour the larger squares in a checkerboard colour scheme.

Do not colour the small black and white stars.

One picture will seem to move away from you while the other will come closer.



FLOWERS

The left-over letters will spell out something that flowers always need: _____



S	C	S	W	S	U	N	F	L	O	W	E	R	S	K
M	H	A	B	E	E	T	P	B	H	L	A	O	N	C
U	R	I	E	S	C	E	E	U	T	E	T	S	O	O
R	Y	N	D	O	Y	L	T	D	A	A	A	E	G	R
H	S	I	S	R	C	O	A	S	E	F	N	D	A	C
T	A	S	D	E	L	I	L	A	R	E	E	E	R	H
E	N	R	L	B	A	V	S	I	B	R	M	L	D	I
R	T	U	O	U	M	N	C	N	S	P	O	P	P	D
Y	H	D	G	T	E	A	A	O	Y	E	N	H	A	S
P	E	A	I	I	N	C	I	G	B	O	E	I	N	E
B	M	H	R	D	S	I	N	E	A	N	S	N	S	I
E	U	L	A	L	M	R	N	B	B	I	C	I	T	P
E	M	I	M	E	L	F	I	N	E	E	E	A	O	P
S	S	A	T	I	N	A	Z	S	Y	S	N	A	P	O
Y	G	S	A	I	N	U	T	E	P	S	T	A	M	P

- ✿ SUNFLOWERS
- ✿ TUBEROSES
- ✿ URSINIAS
- ✿ ZINNIA
- ✿ PANSY
- ✿ PETALS
- ✿ STEM
- ✿ LEAF
- ✿ SCENT
- ✿ ROSE
- ✿ TALL
- ✿ BEDS
- ✿ BEES
- ✿ BEET
- ✿ ROCK
- ✿ POTS
- ✿ SATIN
- ✿ STAMP



- AFRICANDAISY ✿
- AFRICANVIOLET ✿
- ANEMONES ✿
- BABYSBREATH ✿
- BEGONIAS ✿
- BUDS ✿
- CHRYSANTHEMUMS ✿
- CYCLAMENS ✿
- DAHLIAS ✿
- DAISIES ✿
- DELPHINIA ✿
- MARIGOLDS ✿
- ORCHIDS ✿
- PEONIES ✿
- PETUNIAS ✿
- POPPIES ✿
- PYRETHRUMS ✿
- SNAPDRAGONS ✿

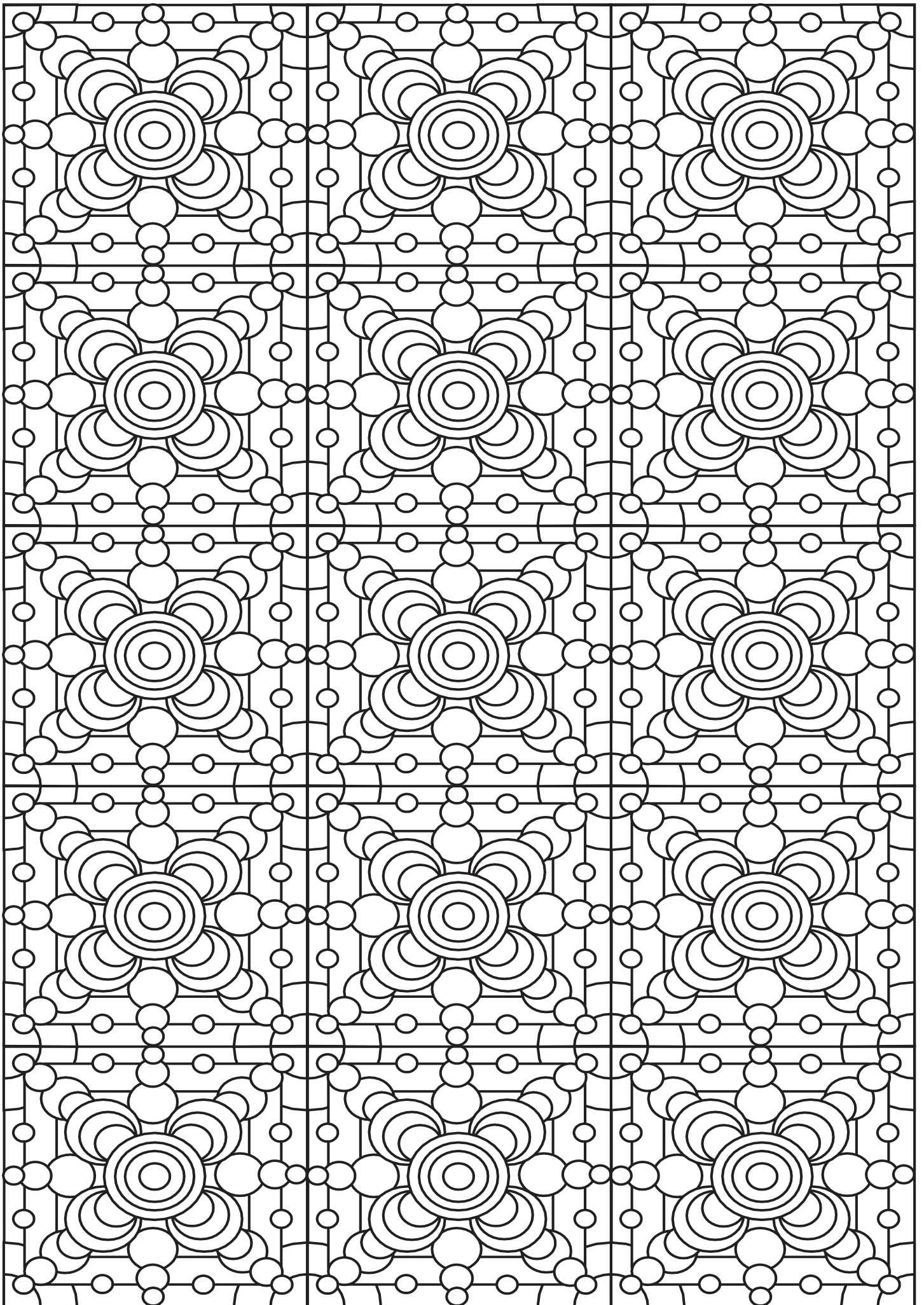
Animals

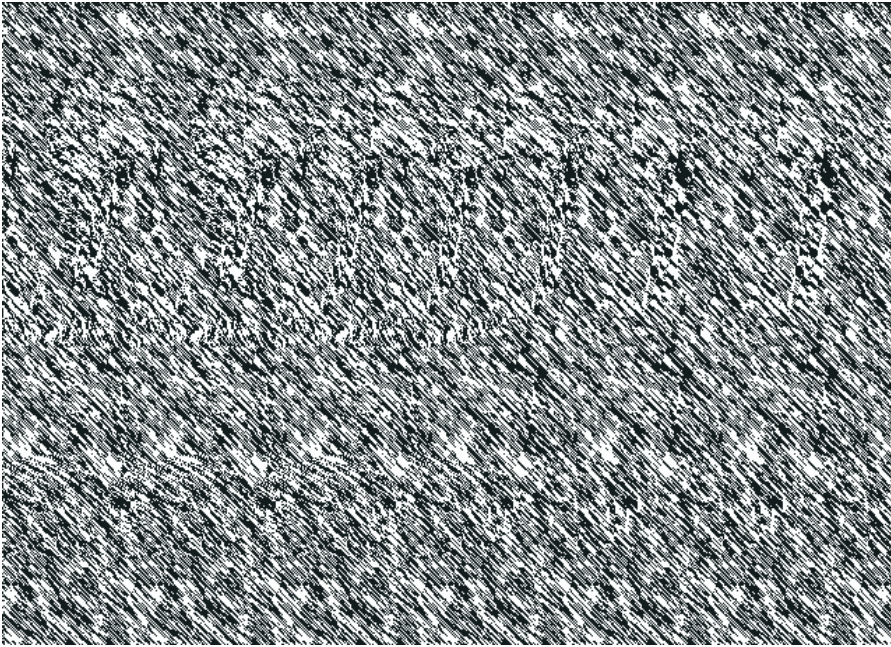
Move each letter forward one place (A becomes B, etc.) to find twenty-five common animals.

- 1 cnf
- 2 gnqrd
- 3 bzs
- 4 bnu
- 5 rgddo
- 6 khnm
- 7 shfdq
- 8 dkdogzms
- 9 ydaqz
- 10 unke
- 11 enw
- 12 snqsnhrd
- 13 adzq
- 14 rmzjd
- 15 qghmnbdqnr
- 16 zmsdknod
- 17 izftzq
- 18 kdnozqc
- 19 bzldk
- 20 fhqzeed
- 21 ghoononszltr
- 22 lnmjdx
- 23 fnzs
- 24 cddq
- 25 bqnbchkd

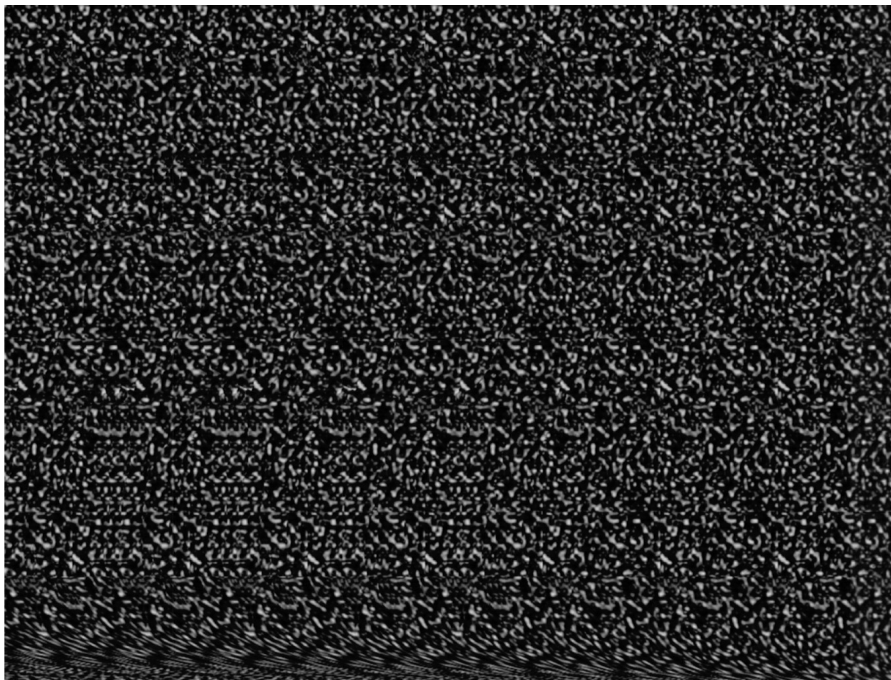
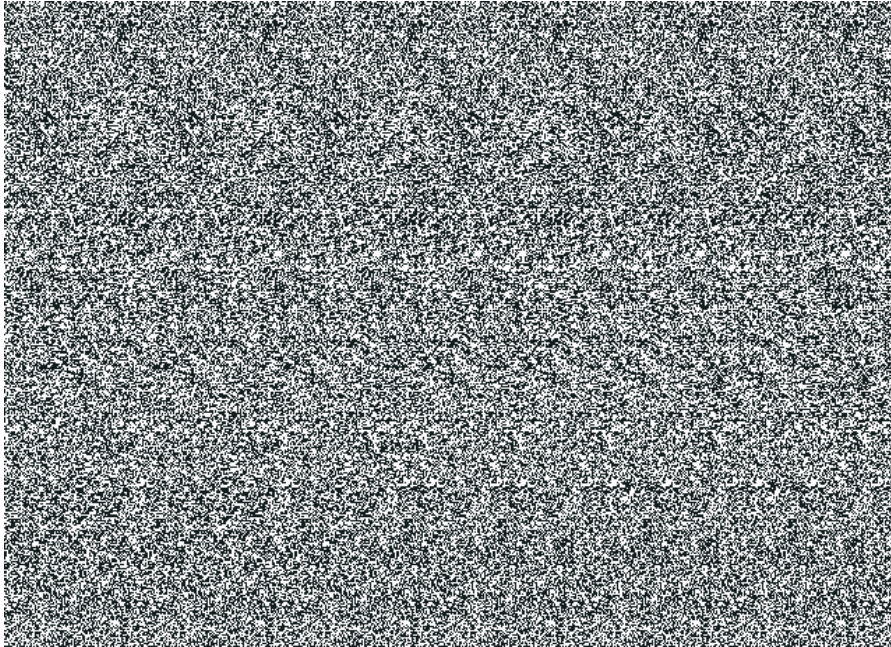


A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z





STPBRBOBA
STPBRBOBA
STPBRBOBA



Draw the
hidden
pictures
in the
boxes.



Sudoku - Easy Puzzle 1

6		8		2				4
		5				3		1
	3		7		4	8	9	
		9		1		7		
	4		8				3	9
	6		2	7				5
5		3				2		8
9			1			6		7
7	2			4	8		1	

Sudoku - Easy Puzzle 2

		8		6			1	
5		3		4	8	9	2	
1				3				5
	3		4	9			5	
4			7			8	6	
7	9	5			1	3		
3		9						6
		2		7				
6		7	3		5	2		8

Sudoku - Easy Puzzle 3

	1		9			3	7	
	5		4	2				8
2		8						
5		1					3	6
7			1			5	9	
4		9		3	7	8		
				1	6	2		
	9			5	4	1		7
	7	6	8	9		4		

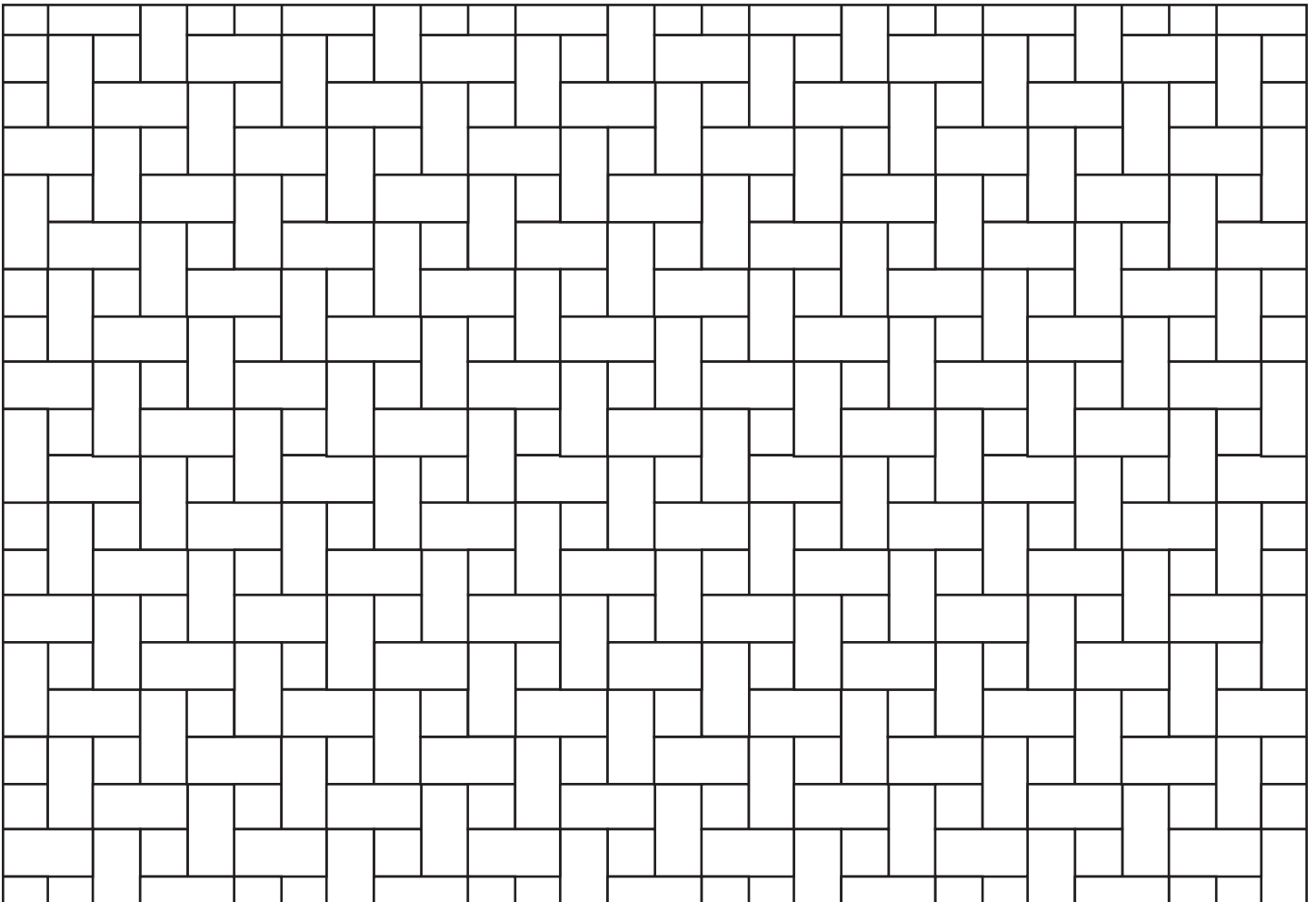
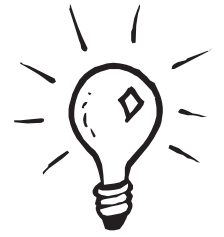
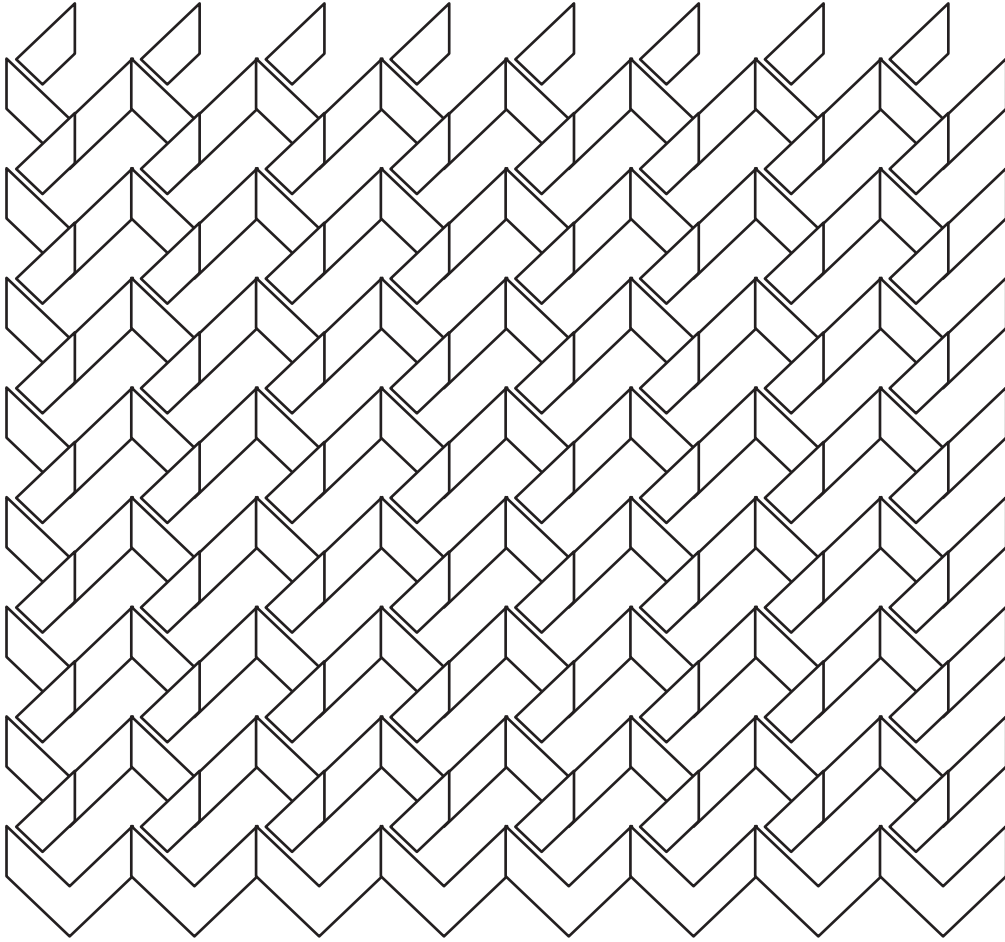
Sudoku - Easy Puzzle 4

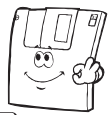
3	2		1		5	7		
9			7			1		
			8		9	4		5
		6		7		8	5	
	8						7	9
5		3		8	2			
	1	9	6					
		2	4		8	5	6	
6	4			1			3	8

Sudoku - Easy Puzzle 5

9	8		7					3
6			4	8				5
		4		9		1	8	
1					7	5	2	8
	5	7		3				
2		9	6					
	7	6	3		9			4
		8		6		2	3	
	1			7	4			9



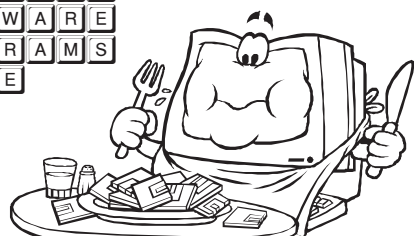




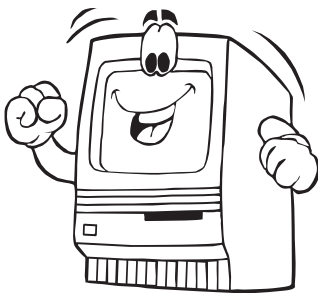
S T N E M T S U J D A H E A D
 E V A L S D N A H N P R O M M
 V H R R C E S L O T A T K O Y
 I C C E I E R D S W I S S R R
 R L O A R P E A T A C T I D O
 D I W D C S R F W R C N D C T
 D E A R U T O O E D F H G O C
 R N G N I S S E C O R P I M E
 A T E R T T N A R E S A A P R
 H M S Y S T E M F M S A H U I
 C A L C U L A T O R E S V T D
 M C O F I T D O R C I M O E A
 R P W F I E A S M A R G O R P
 A U T O M A T I C A L L Y R R
 M E N I H C A M O N I T O R Y

The left-over letters will spell something that every computer needs: -----

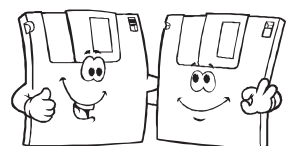
> I N F O R M A T I O N
 > P R O C E S S I N G
 > C A L C U L A T O R
 > M A C H I N E
 > S Y S T E M
 > D A T A
 > A U T O M A T I C A L L Y
 > C P U
 > P R O C E S S O R
 > C O M P U T E R
 > C I R C U I T
 > H A R D W A R E
 > S O F T W A R E
 > P R O G R A M S
 > C A C H E
 > D I S K

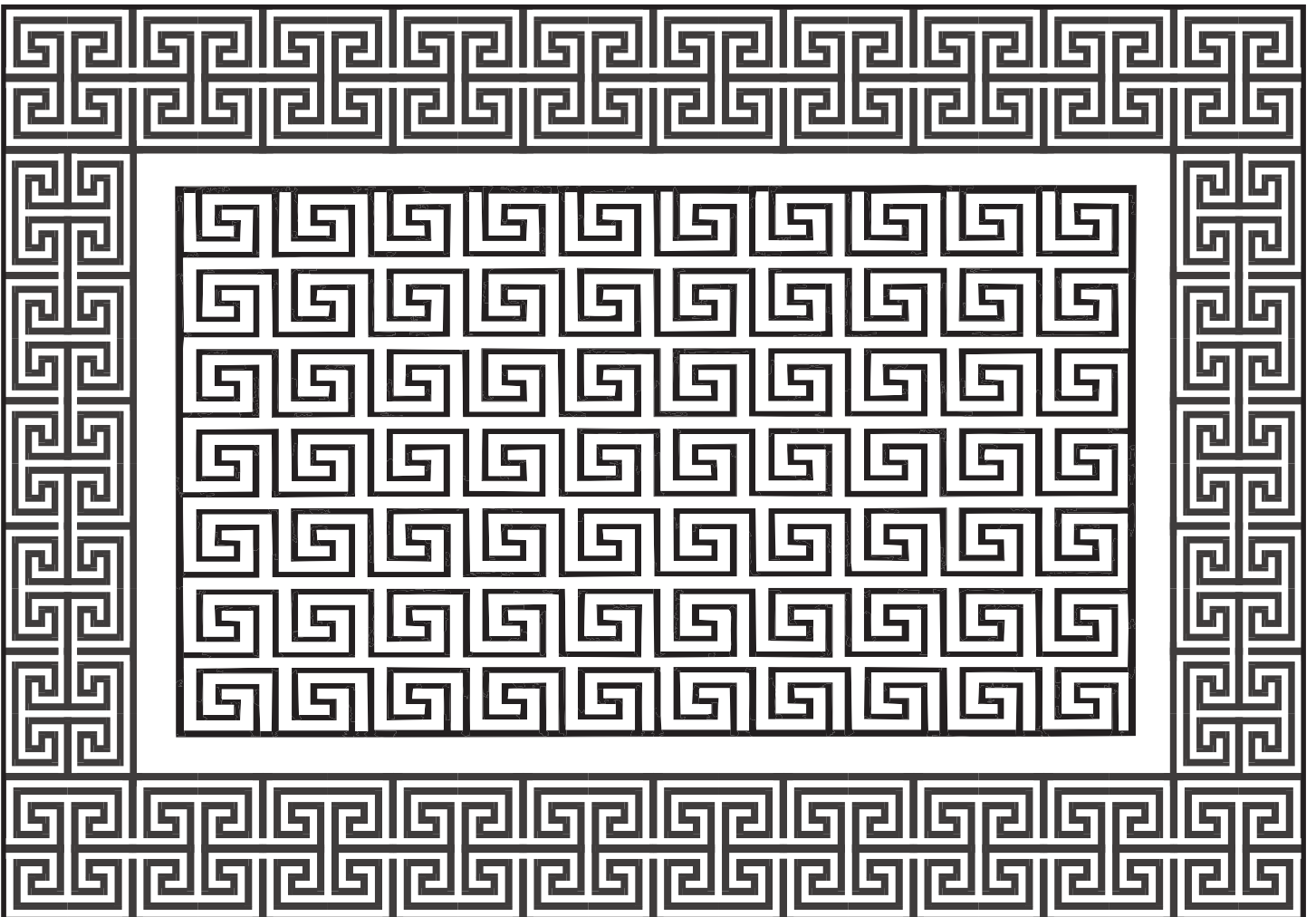
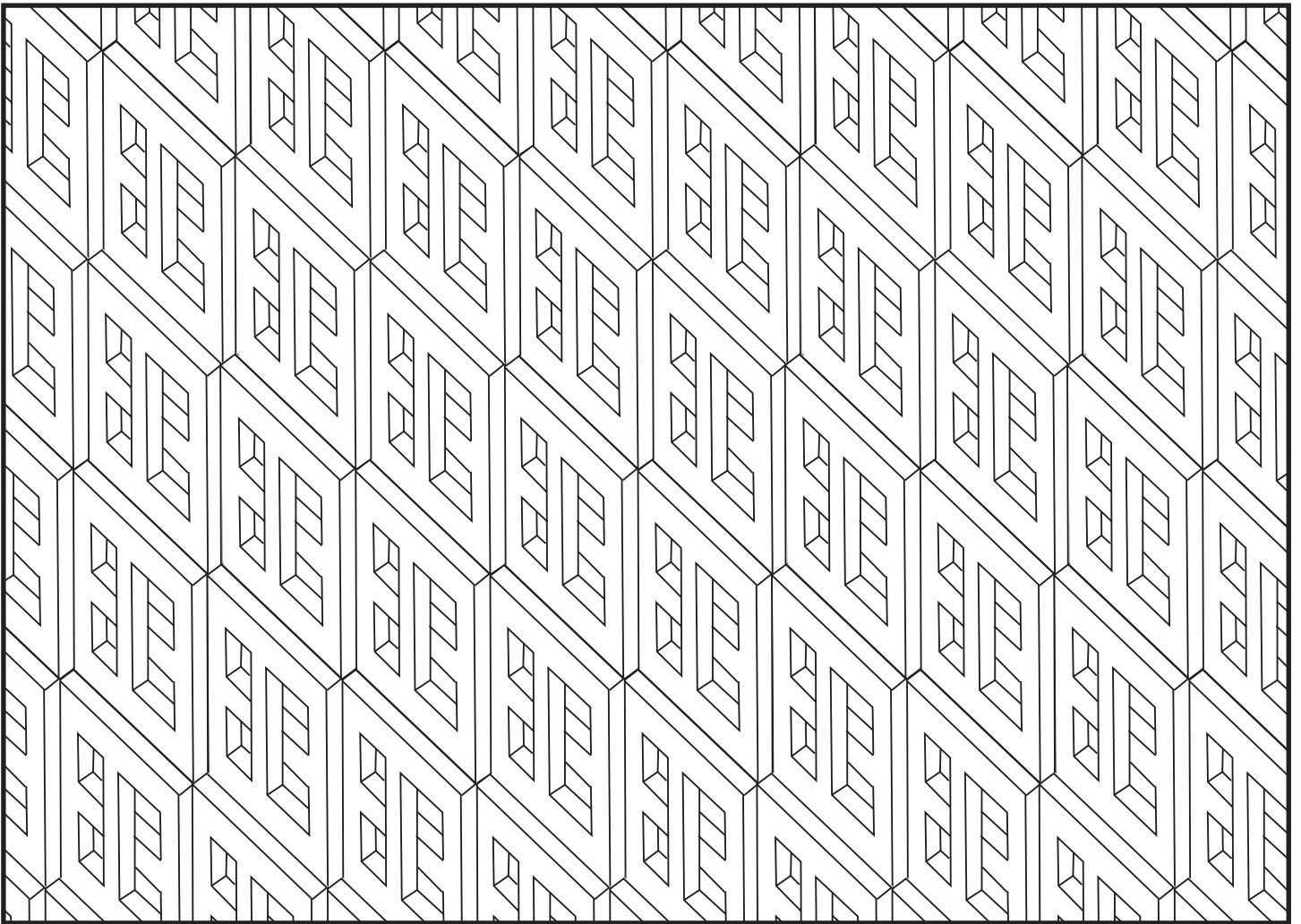


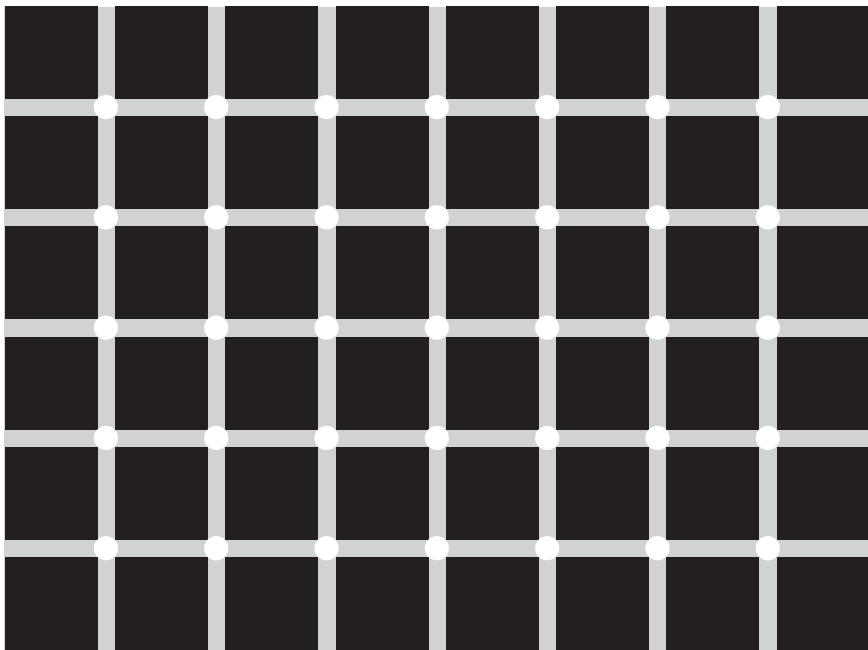
> H A R D D R I V E
 > M O N I T O R
 > A D J U S T M E N T S
 > D I R E C T O R Y
 > S C R E E N
 > M E M O R Y
 > S P E E D
 > C D R O M
 > R E A D
 > W R I T E
 > S A V E
 > F I L E
 > C H I P
 > M I C R O
 > H O S T
 > S L A V E



> C L I E N T
 > N O D E
 > W A I T
 > O F F
 > S L O W
 > F A S T
 > S L O T
 > R A M
 > R O M
 > H E A D
 > H A N D S
 > W A G E S
 > M O S T
 > P A D



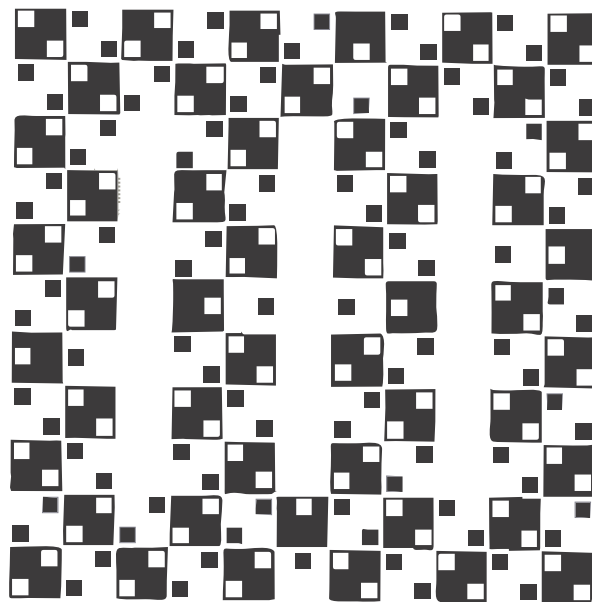
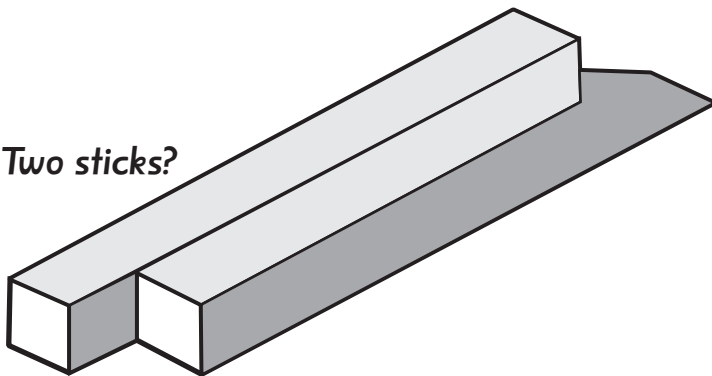




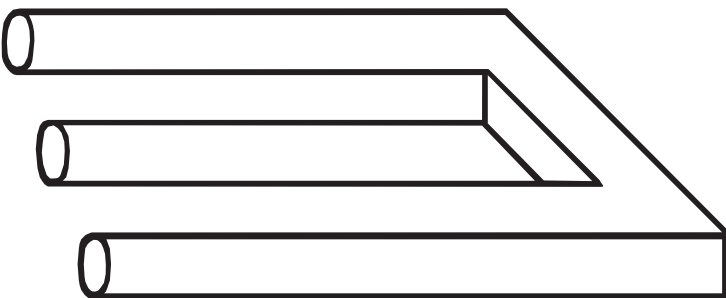
There are only white circles at the intersections.



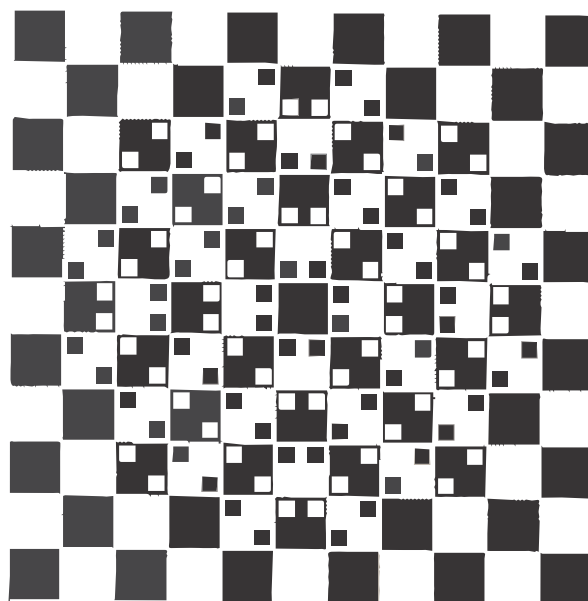
Two sticks?

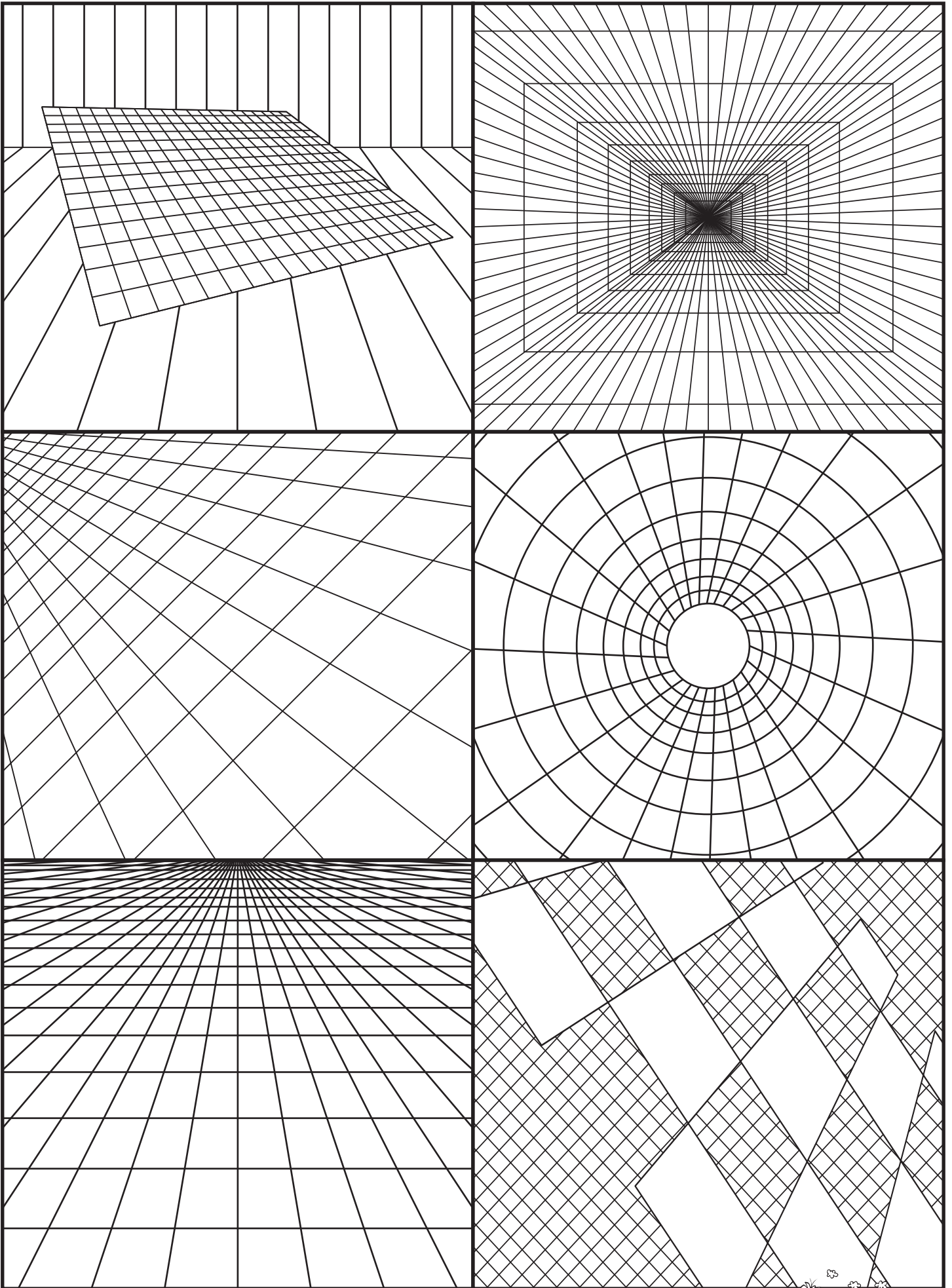


There are no curved lines in these figures.



Three prongs?



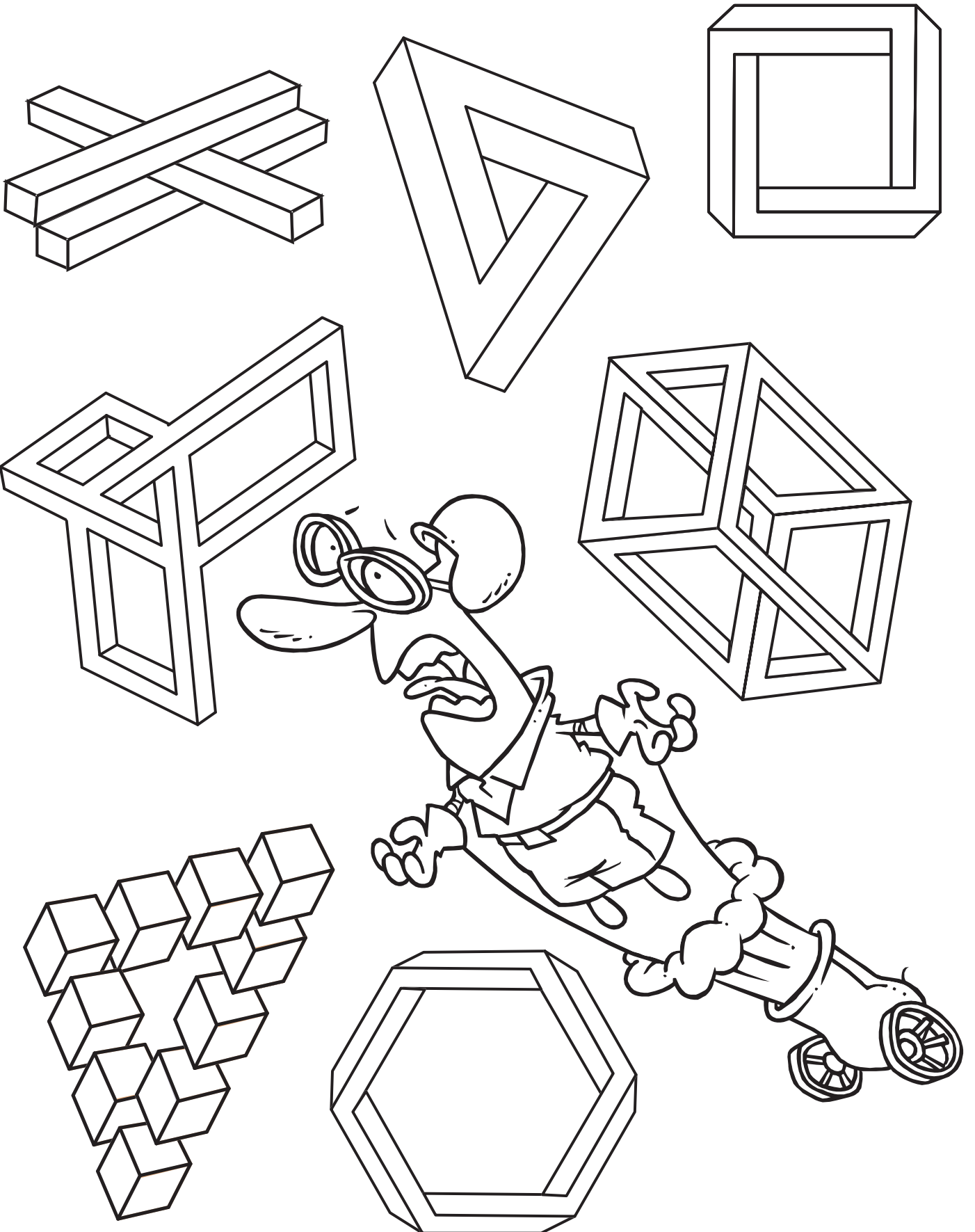


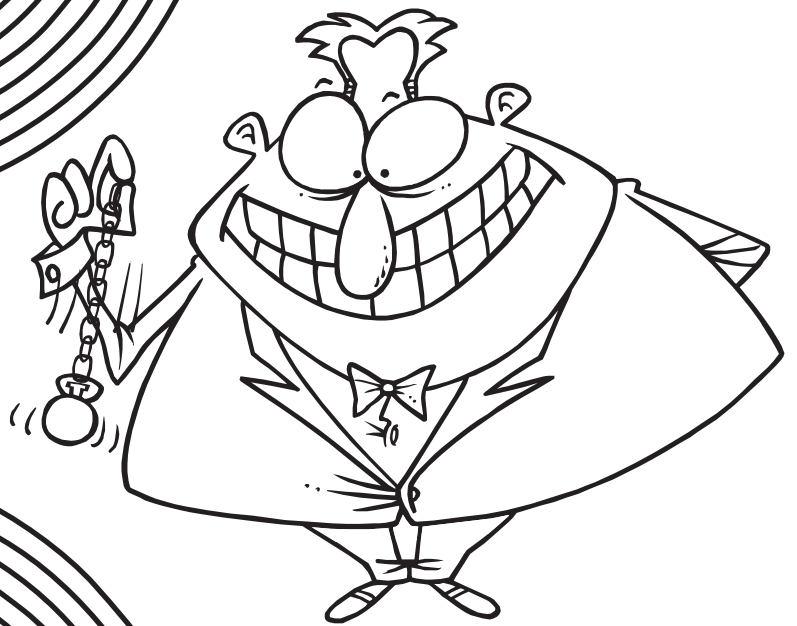
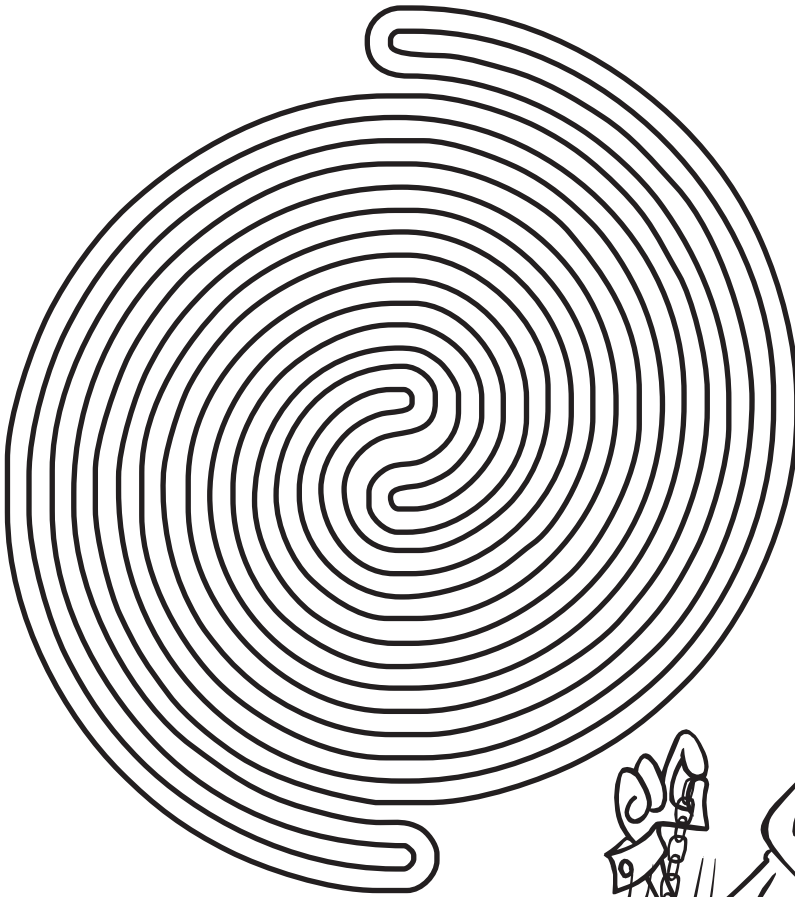
Explore these designs with colour.



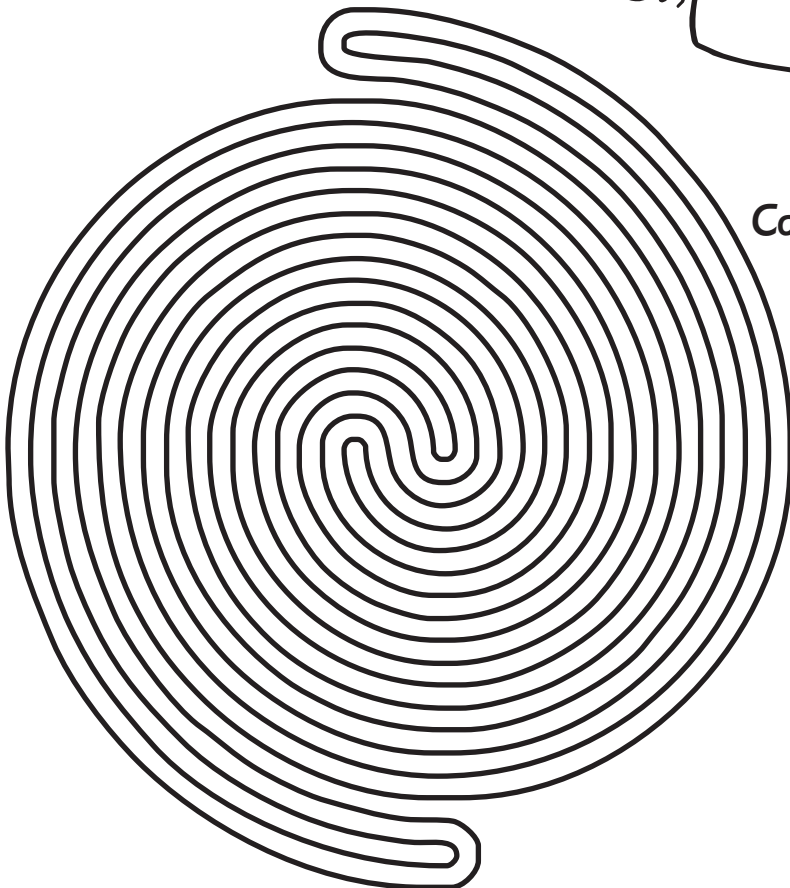
Try to colour these

OPTICAL ILLUSIONS

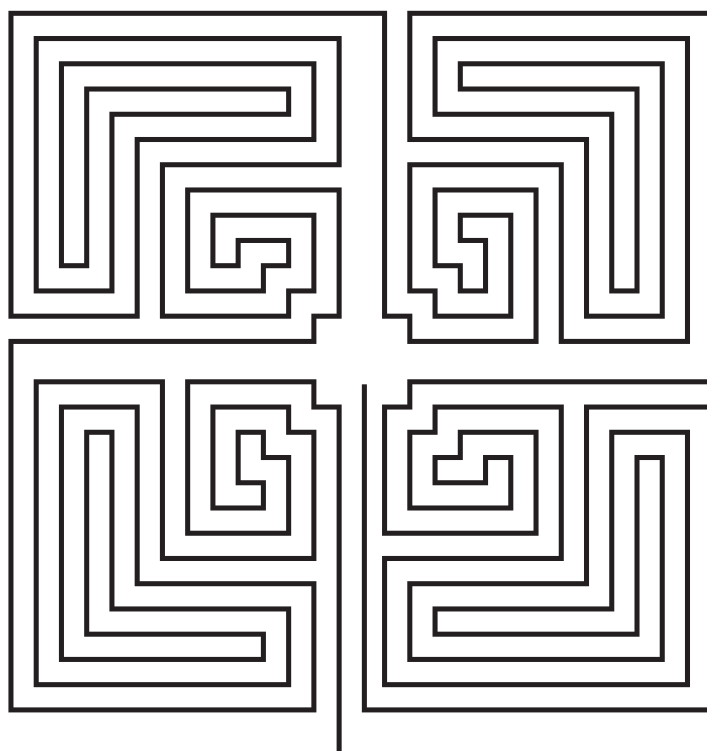
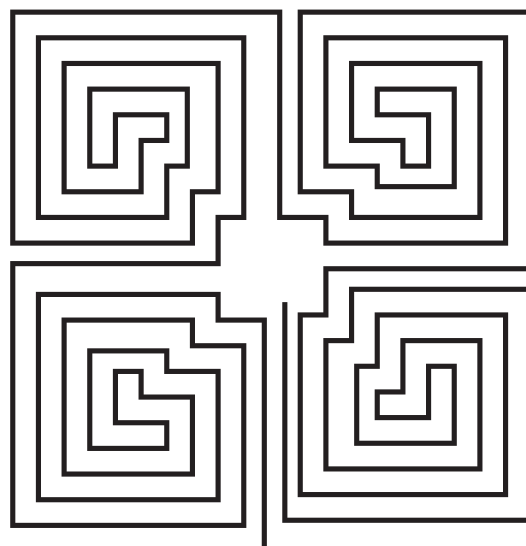
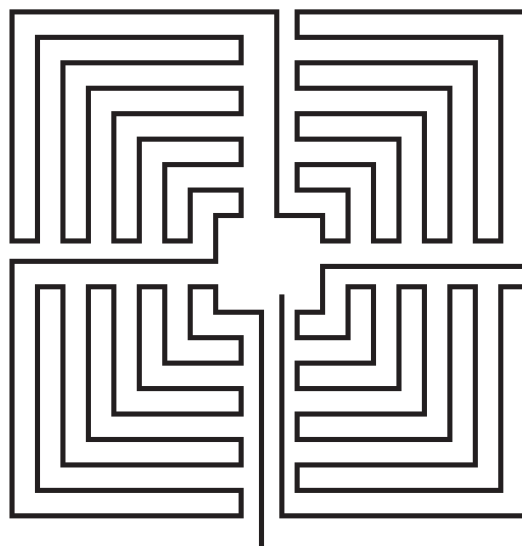
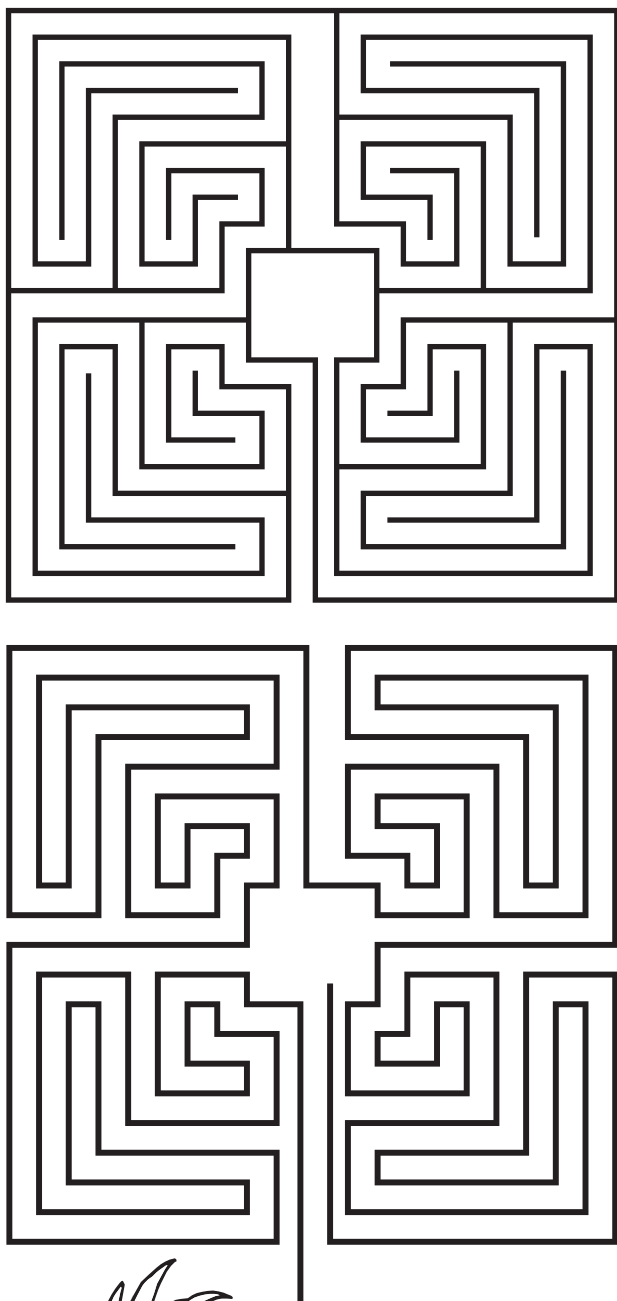




Colour these spirals for a surprise.



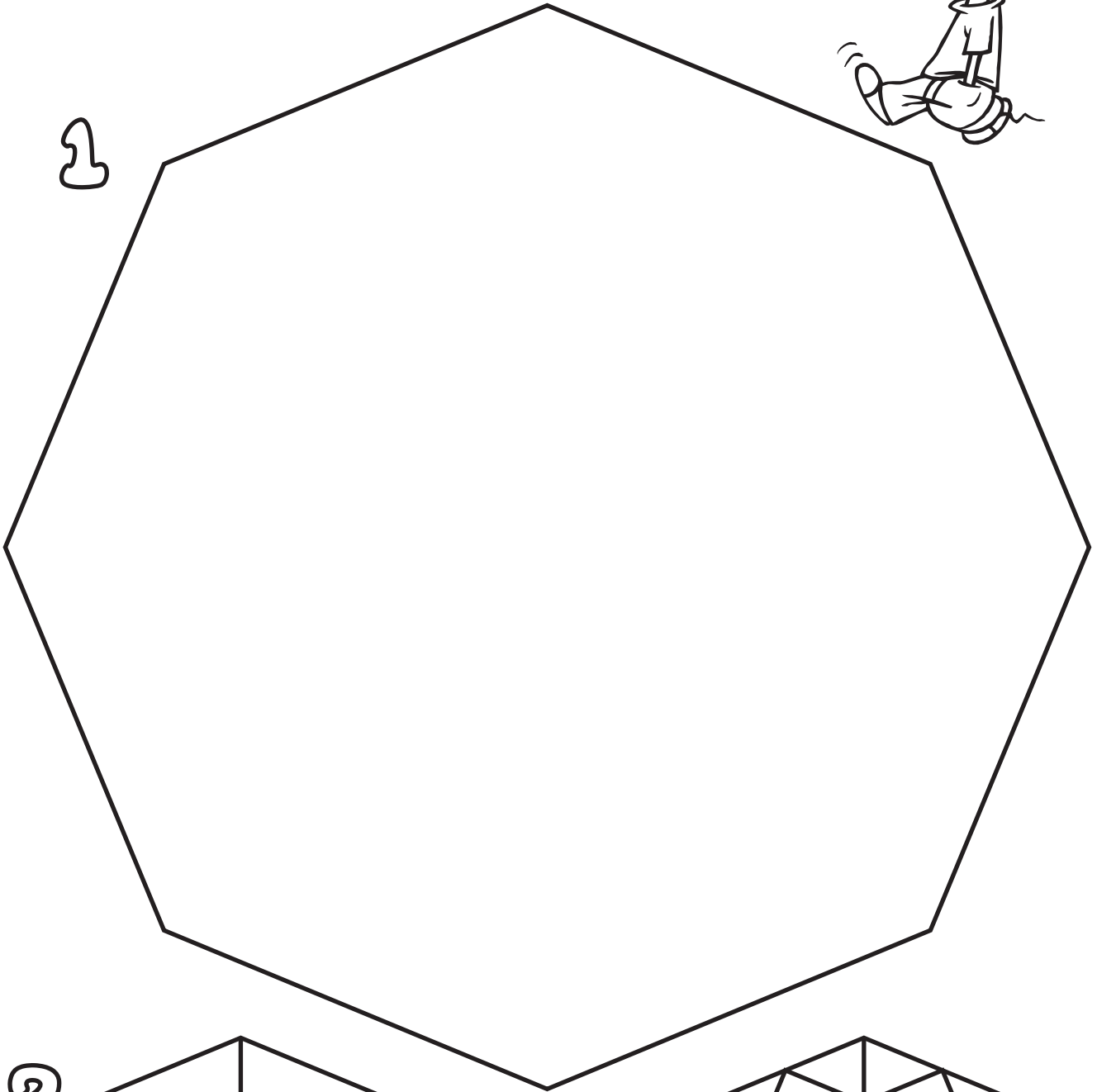
Colour pathways through these interesting Roman mazes.



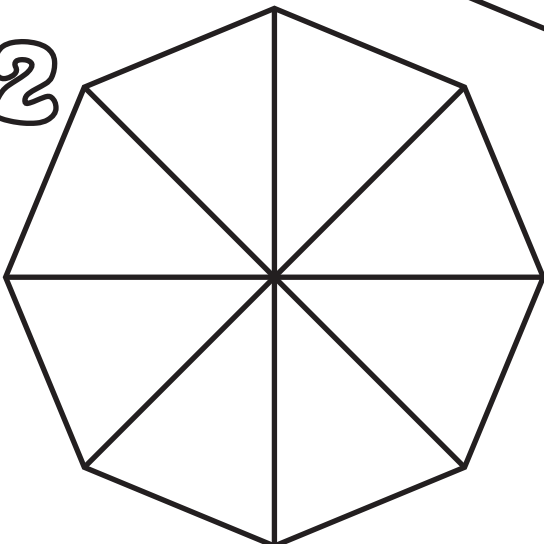
Use the ideas below
to produce your own
design on the big octagon.
Use a ruler and colour it carefully.



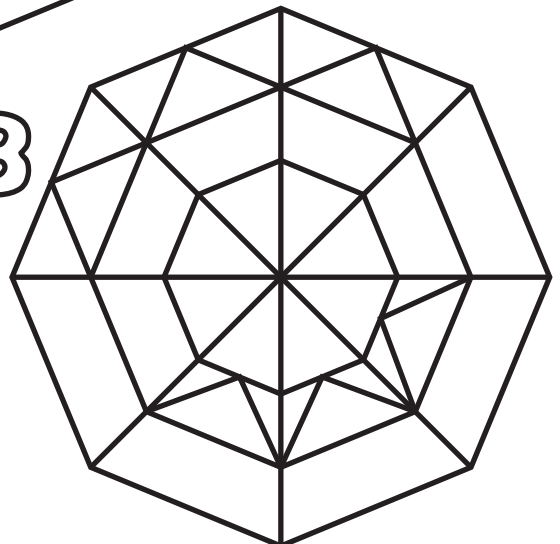
1



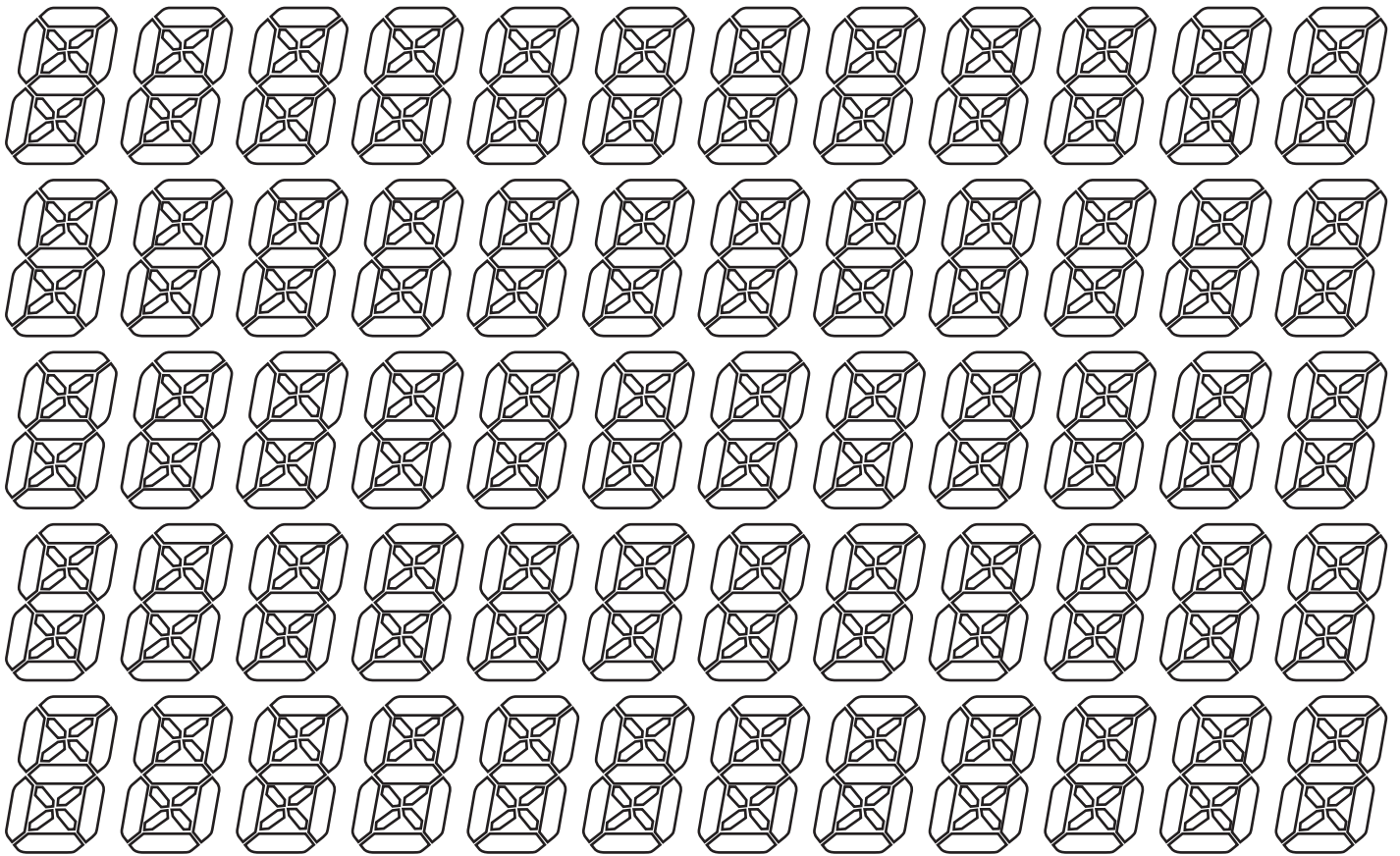
2



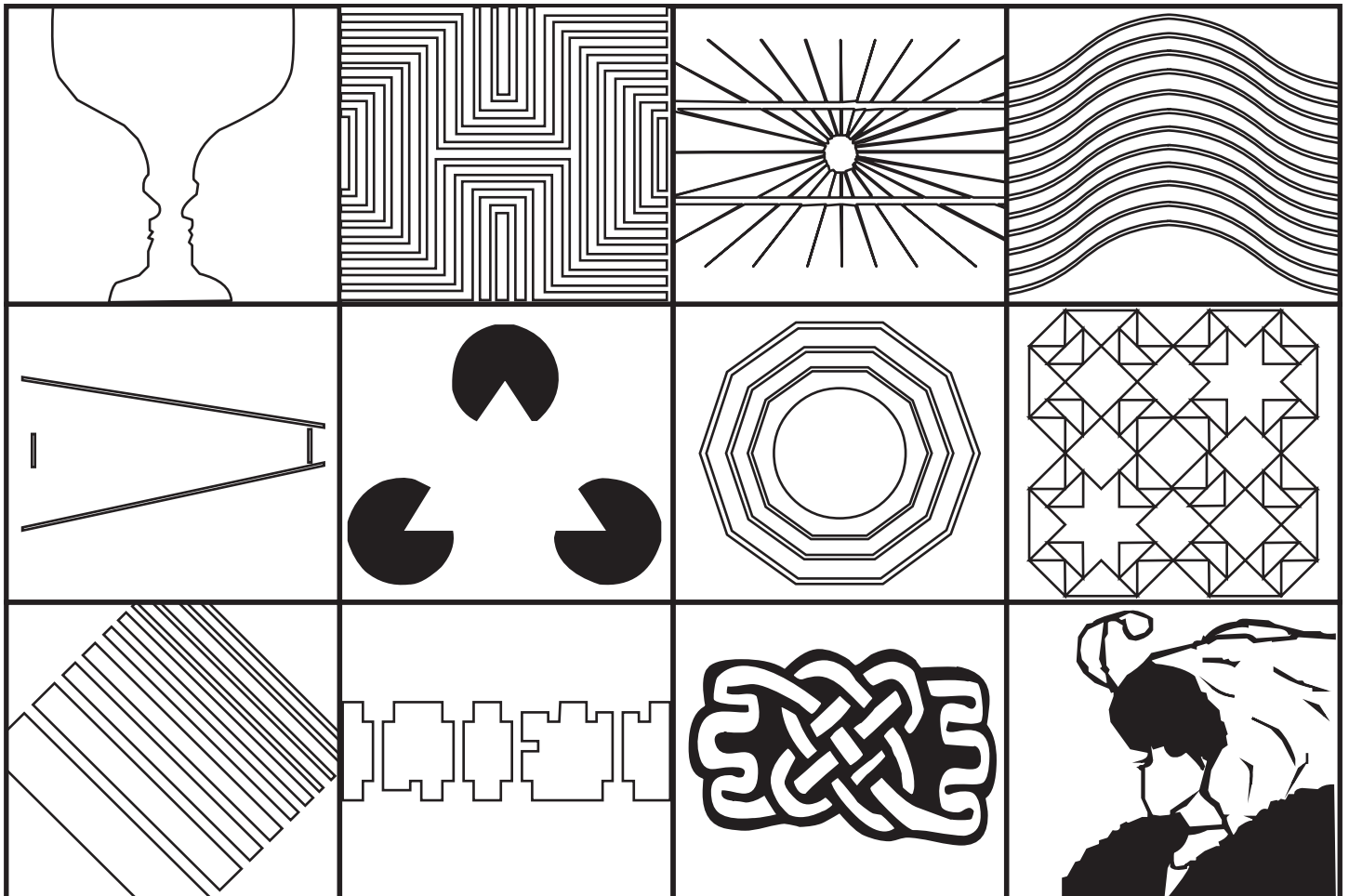
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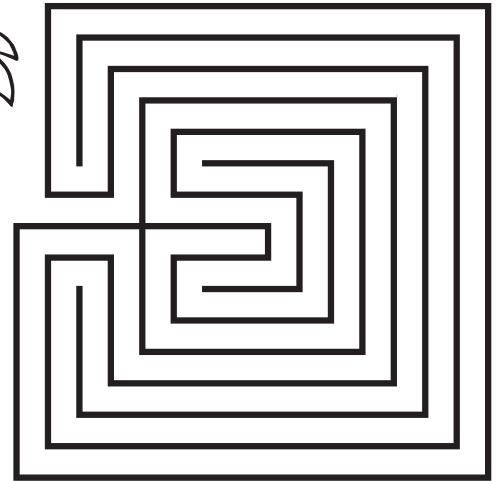
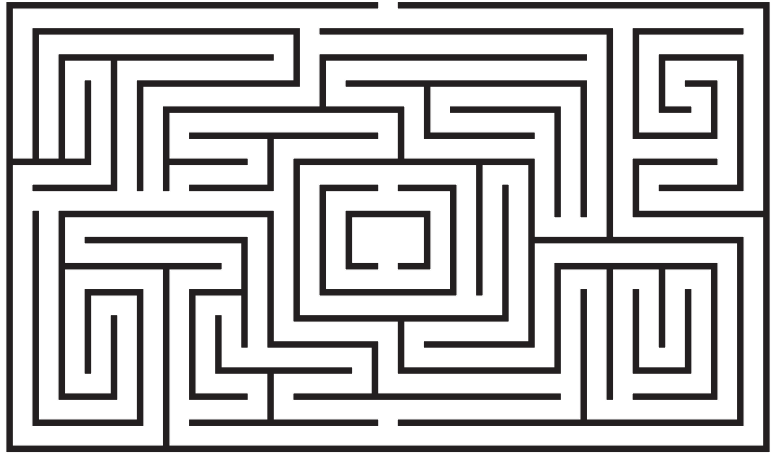
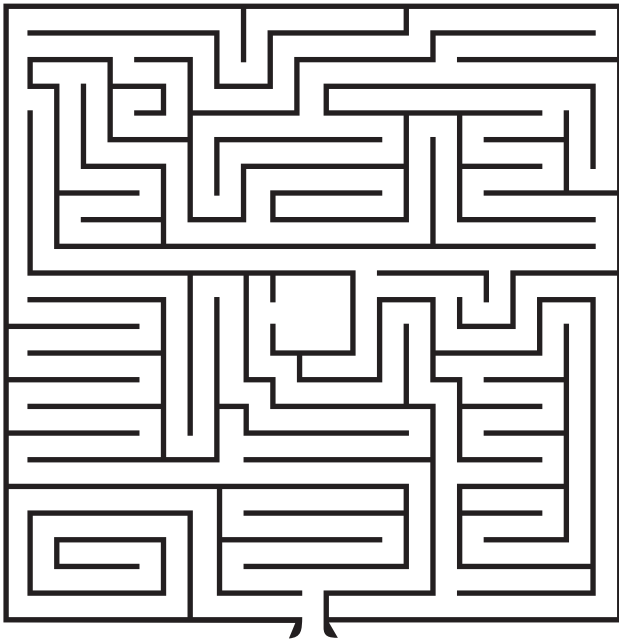


USE COLOUR TO MODIFY THIS BLANK DISPLAY TO MAKE YOUR OWN LETTERS.
YOU COULD WRITE YOUR NAME AND ADDRESS OR A NOTE TO SOMEBODY.

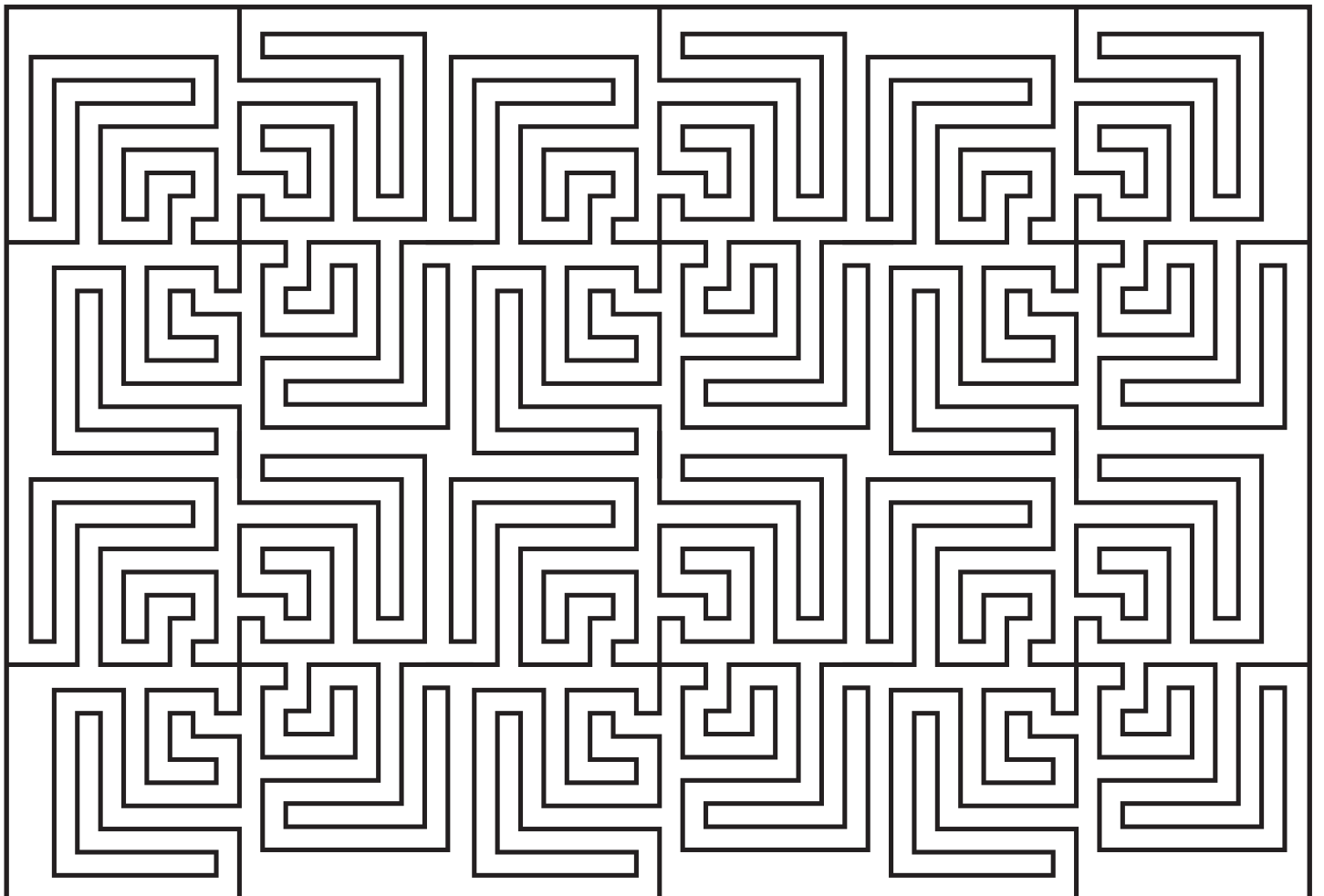


12 squares to explore.

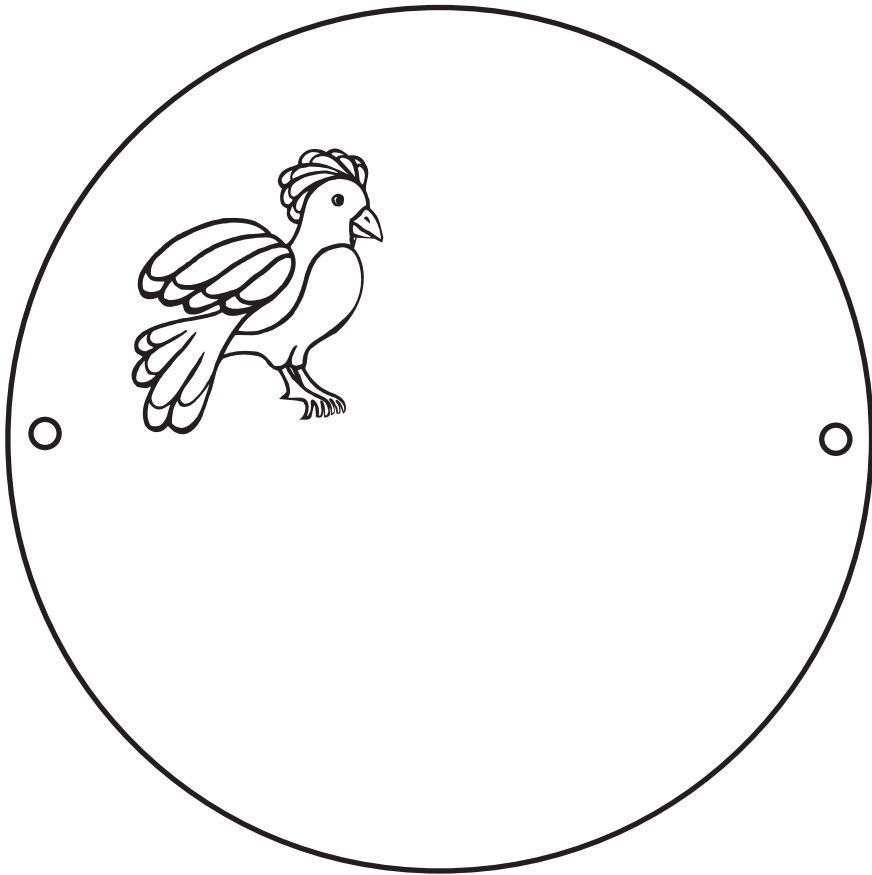




*Fly around these mazes.
Use colour to explore them.*



THAUMATROPE



☼ Colour and cut out the two disks.

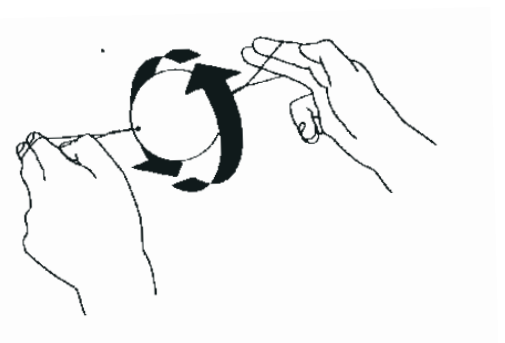
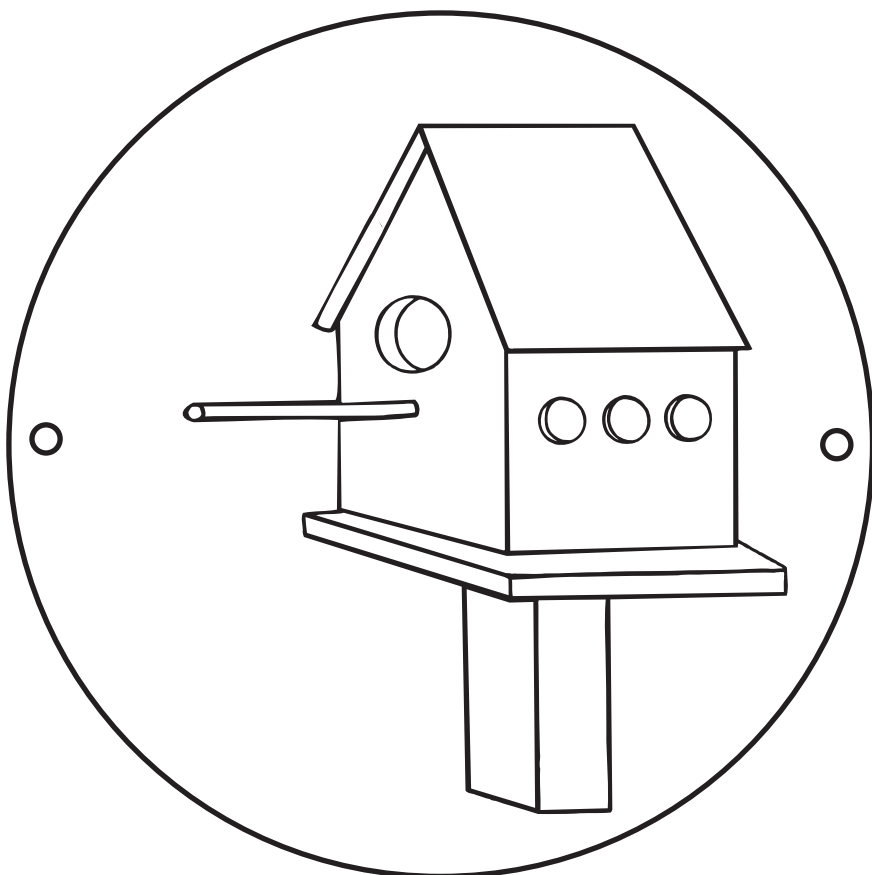
☼ Glue them back to back onto some cardboard (or photocopy directly onto cardboard).

☼ Punch out some holes where shown, and thread some pieces of string through them.

☼ Twist up the string so that the disk twirls.

☼ The bird should end up landing at the bird house.

☼ Try it with other images.



WEATHER PATTERNS

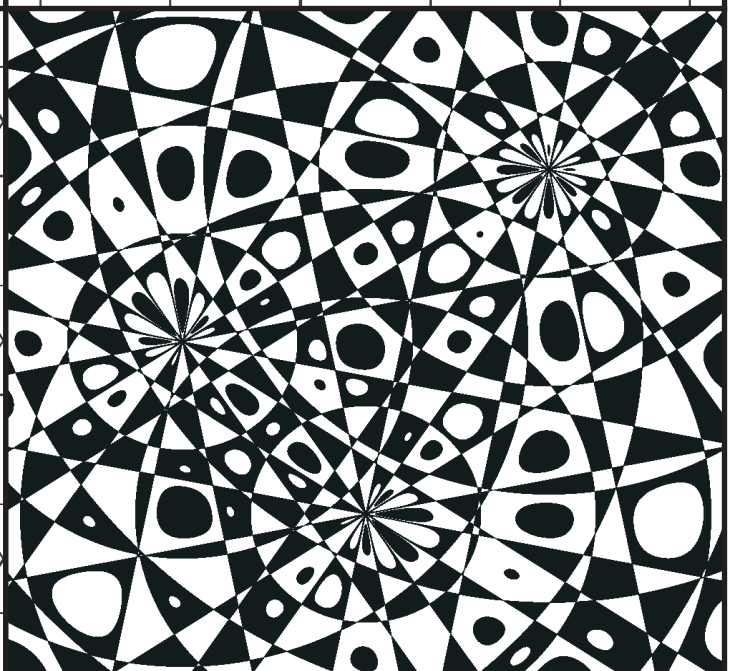
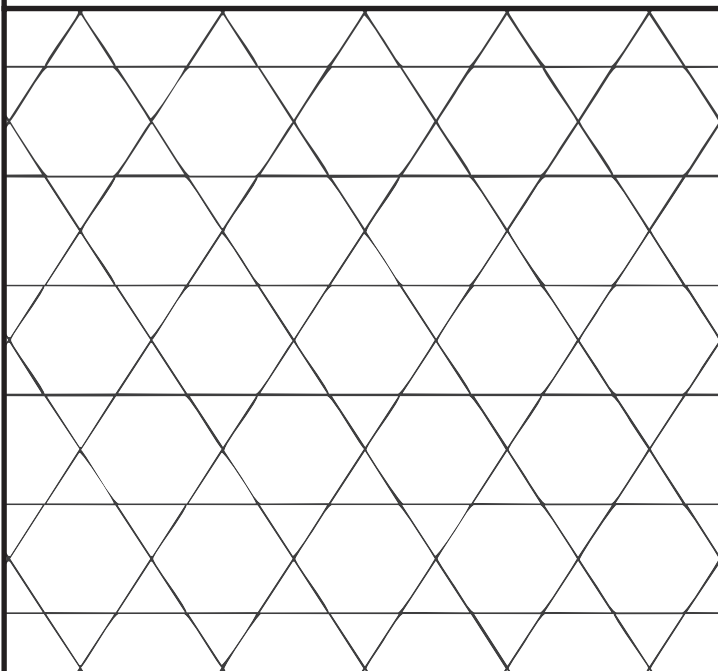
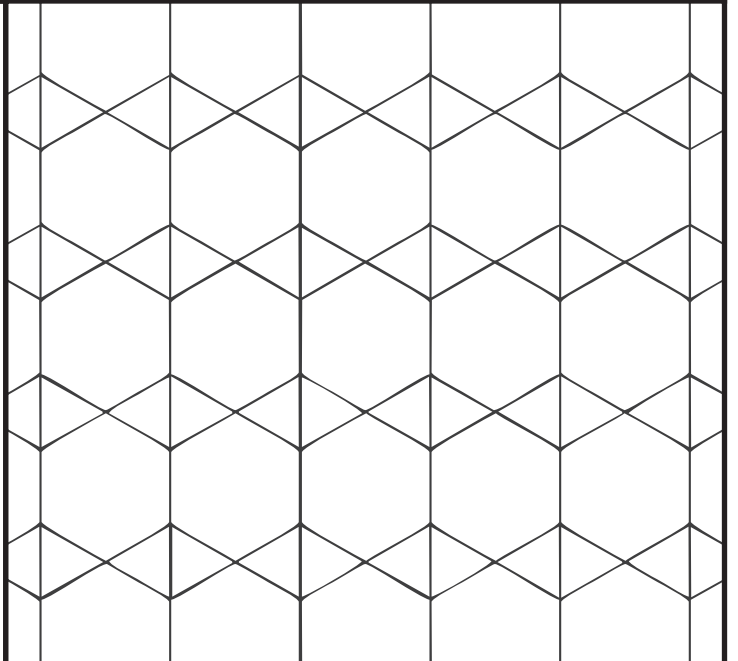
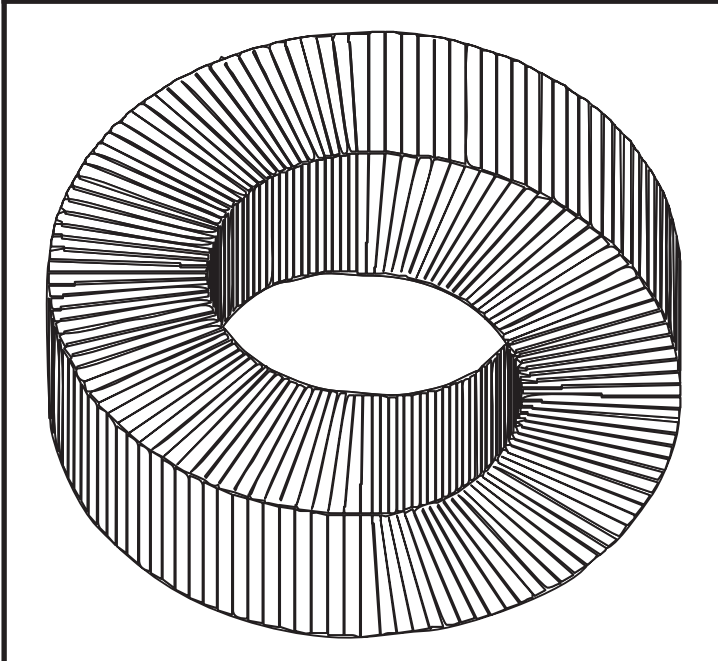
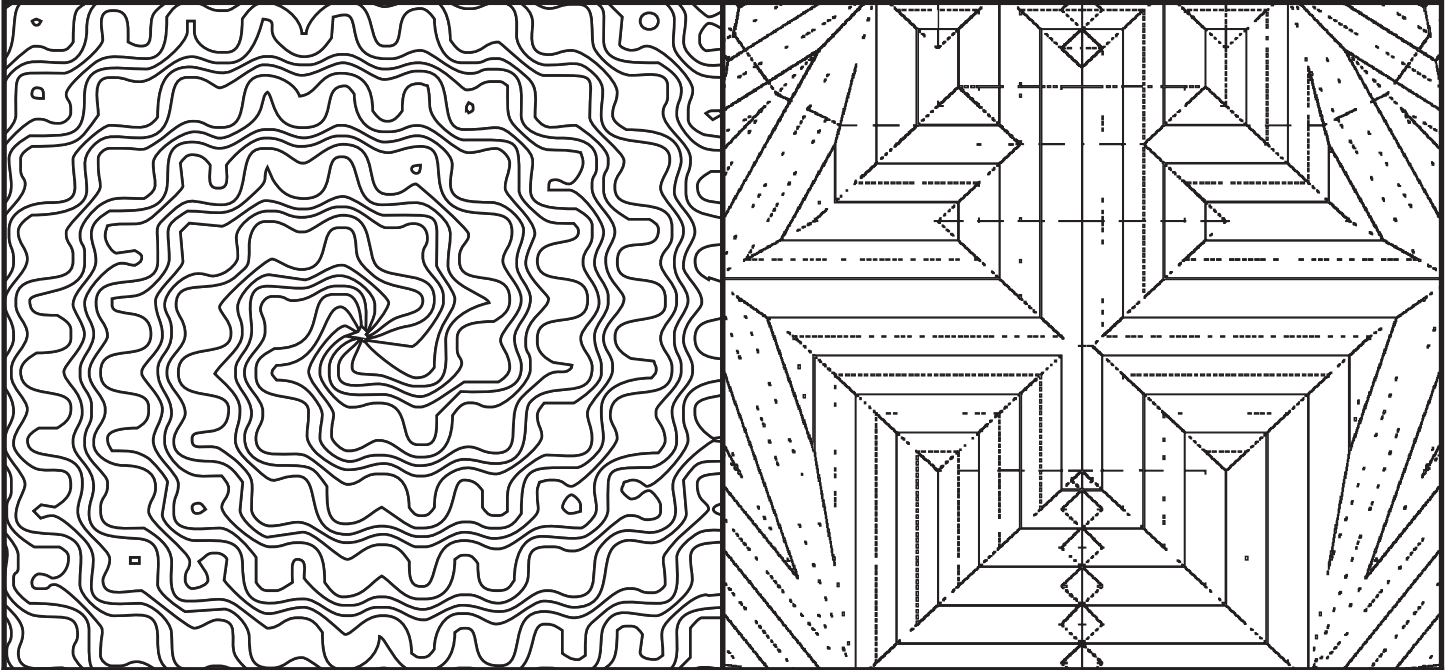
N O N E M O N E H P B W E D M
 O H A I L A P C E R A Y R L B
 I T E T D T W O A H D Y A E L
 T E P A M M O L T N I C I S O
 A M E O C O N D I T I O N S W
 T P V S H S S W O G C G F D Y
 I E A P A P E P O W A T A U C
 P R W O R H W L H L N I L O N
 I A T R T E O D E E D F L L E
 C T A D A R N R N M R U A C M
 E U E T O I A A G O E E O L E
 R R H E W C W A R M I N G L L
 P E T P E F L O O D H O T N C
 R E U S T F E N I H S N U S N
 M D R O U G H T H U N D E R I

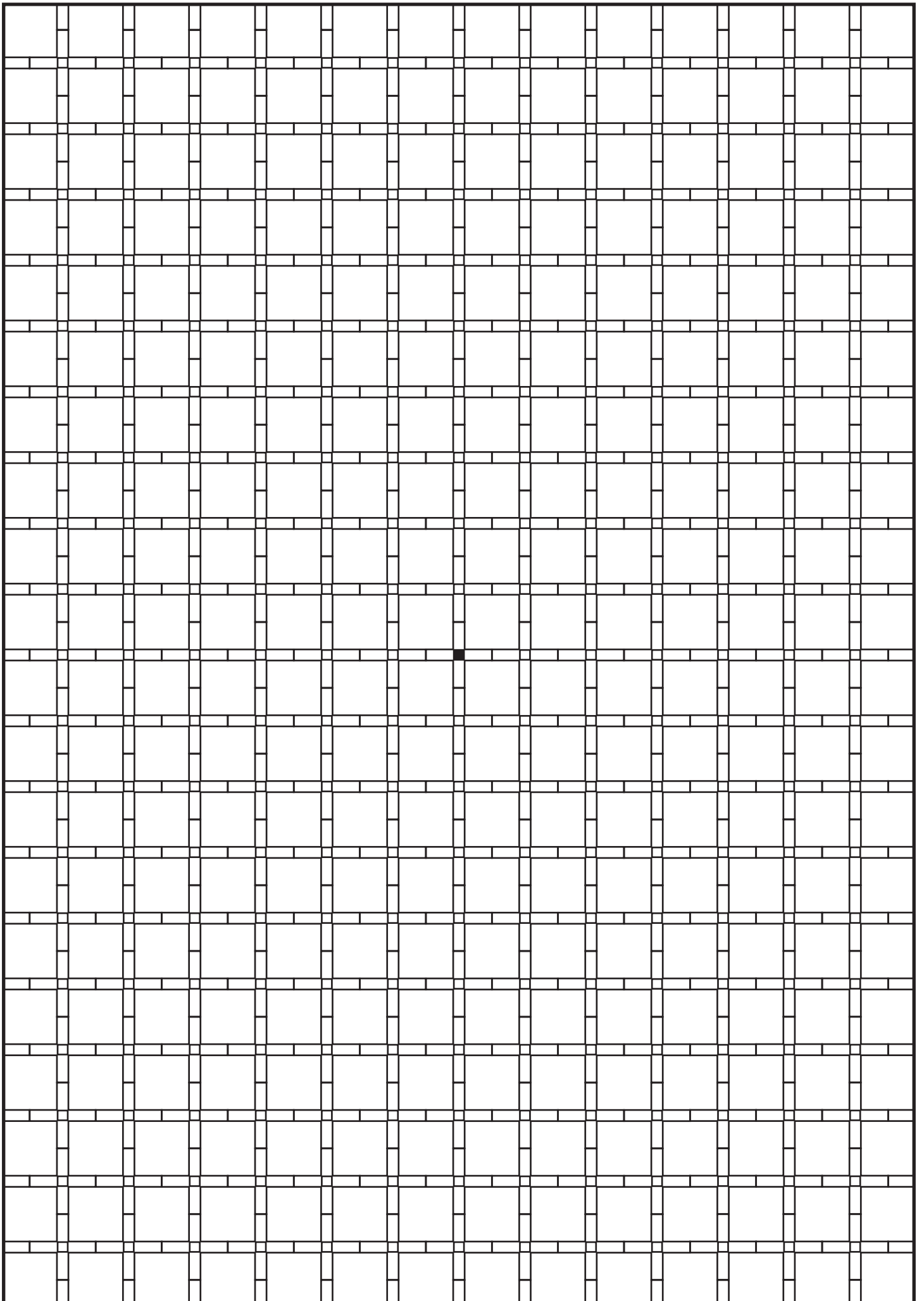


- | | | |
|---|-------------------------------------|--------------------------------|
| <input type="checkbox"/> WEATHER | <input type="checkbox"/> ELEMENTS | <input type="checkbox"/> BLOWY |
| <input type="checkbox"/> ATMOSPHERIC | <input type="checkbox"/> HEATWAVE | <input type="checkbox"/> CLOUD |
| <input type="checkbox"/> CONDITIONS | <input type="checkbox"/> HOT | <input type="checkbox"/> CALM |
| <input type="checkbox"/> UPWIND | <input type="checkbox"/> INCLEMENCY | <input type="checkbox"/> DRY |
| <input type="checkbox"/> WINDY | <input type="checkbox"/> SUNSHINE | <input type="checkbox"/> WET |
| <input type="checkbox"/> TEMPERATURE | <input type="checkbox"/> THAW | <input type="checkbox"/> CARE |
| <input type="checkbox"/> METEOROLOGICAL | <input type="checkbox"/> WARMING | <input type="checkbox"/> HEAT |
| <input type="checkbox"/> CLOUDS | <input type="checkbox"/> FLOOD | <input type="checkbox"/> CHART |
| <input type="checkbox"/> PRECIPITATION | <input type="checkbox"/> HAIL | <input type="checkbox"/> MAP |
| <input type="checkbox"/> PHENOMENON | <input type="checkbox"/> GALE | <input type="checkbox"/> FLAG |
| <input type="checkbox"/> ATMOSPHERE | <input type="checkbox"/> SNOW | <input type="checkbox"/> WANE |
| <input type="checkbox"/> BAD | <input type="checkbox"/> DROPS | <input type="checkbox"/> LESS |
| <input type="checkbox"/> COLD | <input type="checkbox"/> DROUGHT | <input type="checkbox"/> MOVE |
| <input type="checkbox"/> DOWNFALL | <input type="checkbox"/> THUNDER | <input type="checkbox"/> DEW |
| <input type="checkbox"/> RAINFALL | | |

The left-over letters will spell out one of the biggest weather problems: _____

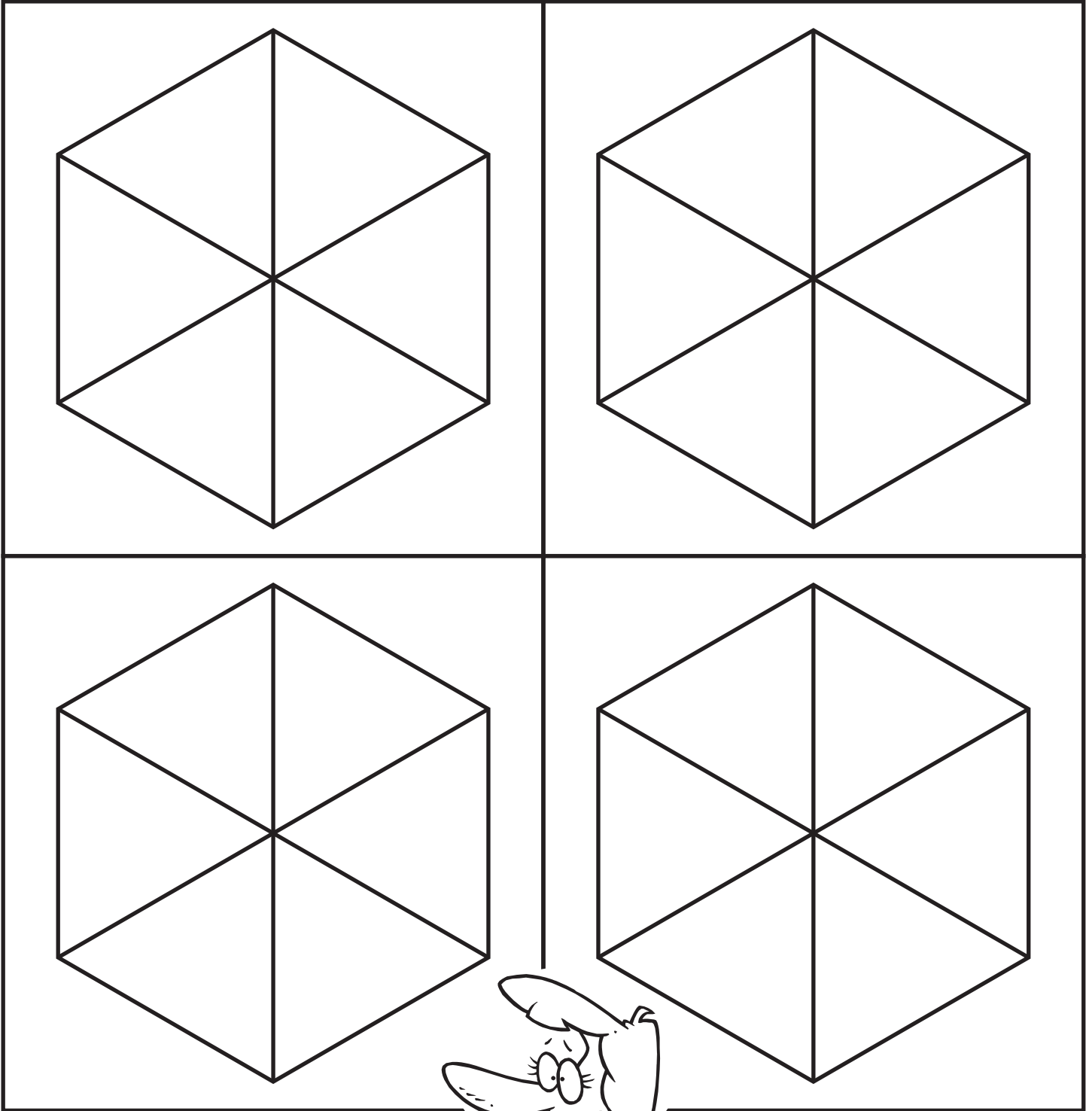
Explore these interesting designs with some colour.





The

HEXACUBE



This shape is half-way between a hexagon and a cube in perspective. Use colour to show how different it can be.

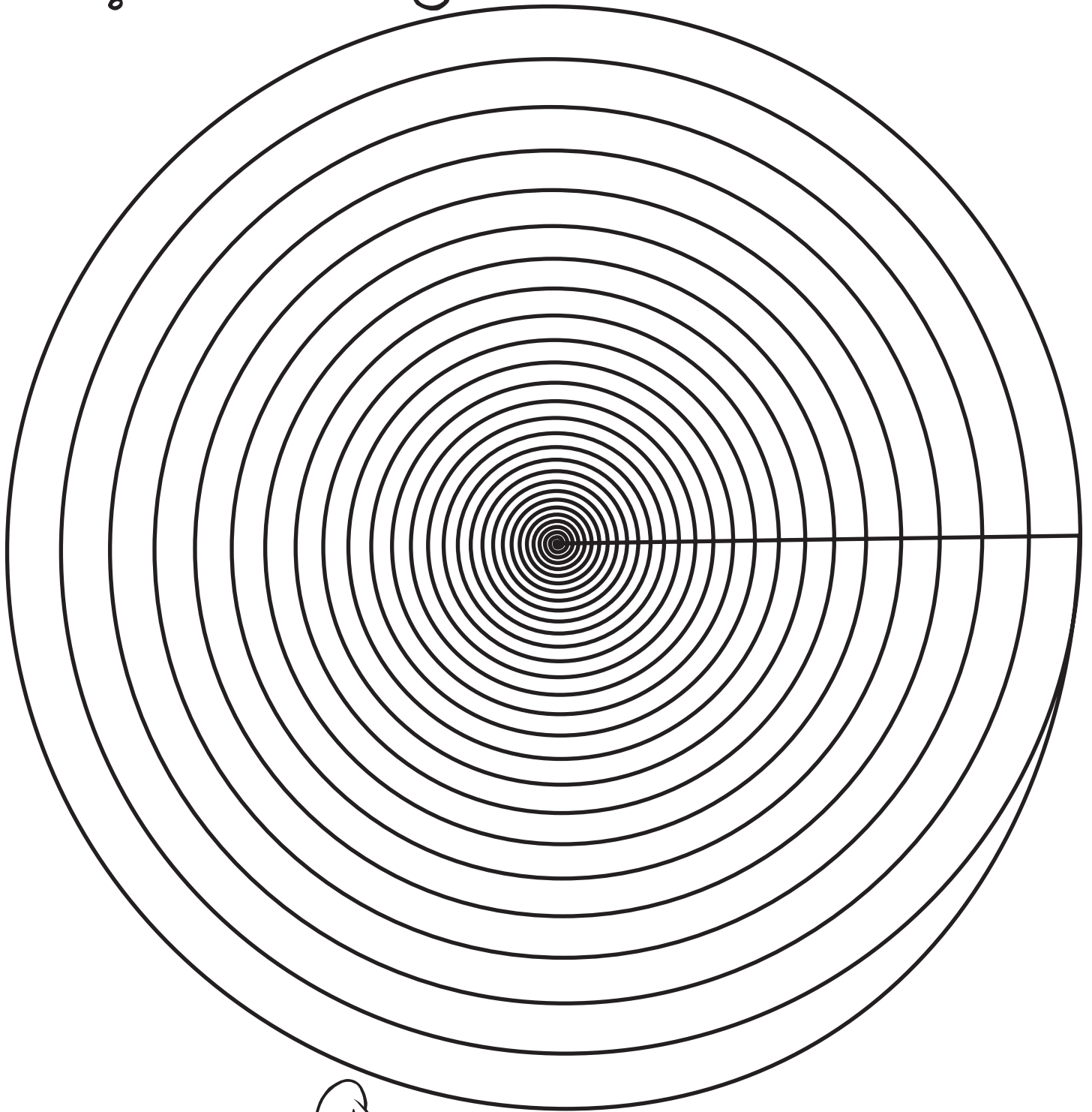
- CHIMES
- HARP
- VIOLIN
- DRUMS
- CASTANETS
- BASSOON
- HARMONICA
- TRUMPET
- CLARINET
- PANPIPES
- RECORDER
- TIN WHISTLE
- FLUTE
- VIOLA
- OBOE
- GLOCKENSPIEL
- GUITAR
- XYLOPHONE
- SAXOPHONE
- BAGPIPES
- CYMBALS
- BUGLE
- TROMBONE
- BELLS
- PICCOLO
- SITAR
- ORGAN
- UKULELE
- TUBA
- PIANO
- MANDOLIN
- BANJO
- TAMBOURINE
- TYMPANI
- FRENCHHORN
- KEYBOARD
- CELLO
- WIND
- STRINGS
- ORCHESTRA
- BRASS
- RHYTHM
- GROUP
- SEMITONE
- TEMPO
- MELODY
- BLUES
- POP
- ROCK
- METAL
- FORTE
- MELLOW
- SOUND
- MUSIC
- PLAYERS
- DYNAMICS
- CONCERT
- PERCUSSION
- CLASSICS



MUSICAL INSTRUMENTS

T B G J X D V F B C V G L A S S I C S Y
 R I R M T Y H V N O I S S U C R E P A B
 E W O A J N L I L V O M R O C K C N B U
 C E U N S A F O D X L Q H E R A T I U G
 N N P D A M G L P R A H L T S G C M T L
 O I E O X I O I U H U L J T Y H A E R E
 C R X L O C P N B T O M A W I H D T O N
 F U P I P S D U P U E N S M P G R A R O
 W O P N H T R U M P E T E N I R A L C T
 O B R A O J N A B T S S L L E B O E H I
 L M A T N B A S S O O N E O B O B I E M
 L A G M E P C I S U M E L O D Y Y P S E
 E T I N W H I S T L E S U F K J E S T S
 M L C T T M N P V E X Y K W X S K N R I
 Y T R E D R O C E R B L U E S W H E A N
 A J M N S R M Z X S E P I P G A B K C A
 R P I S T T R O M B O N E O L O C C I P
 O W A S I T A R O P O E S N A G R O L M
 F R E N C H H O R N Z W C Y M B A L S Y
 B P L A Y E R S D N U O S T R I N G S T

Spiraling out of control



**Colour this spiral pattern,
but don't cross over any lines.
Things may not be what they seem.**

Sudoku - Medium Puzzle 1

6		9			2	7		3
1			6	8				
		2					1	
		4	9				5	
	5	1	4				7	
		8		7		3	2	
8			3			2		
4	2					9		
		3		6	5	1		8

Sudoku - Medium Puzzle 2

			4	2			5	
		6		3	1			4
3	2					1	9	
			5			8		
8		5					6	
9		7	1	4		3		
	5				7			
2			3					8
	7	3			2	9	1	6

Sudoku - Medium Puzzle 3

6		1	4	3			2	7
			5			1		
		9	8				5	
3						9		4
9	2	7	6		4	3		
	8		7				6	
		6	9		5		3	
		2		1			4	
4								8

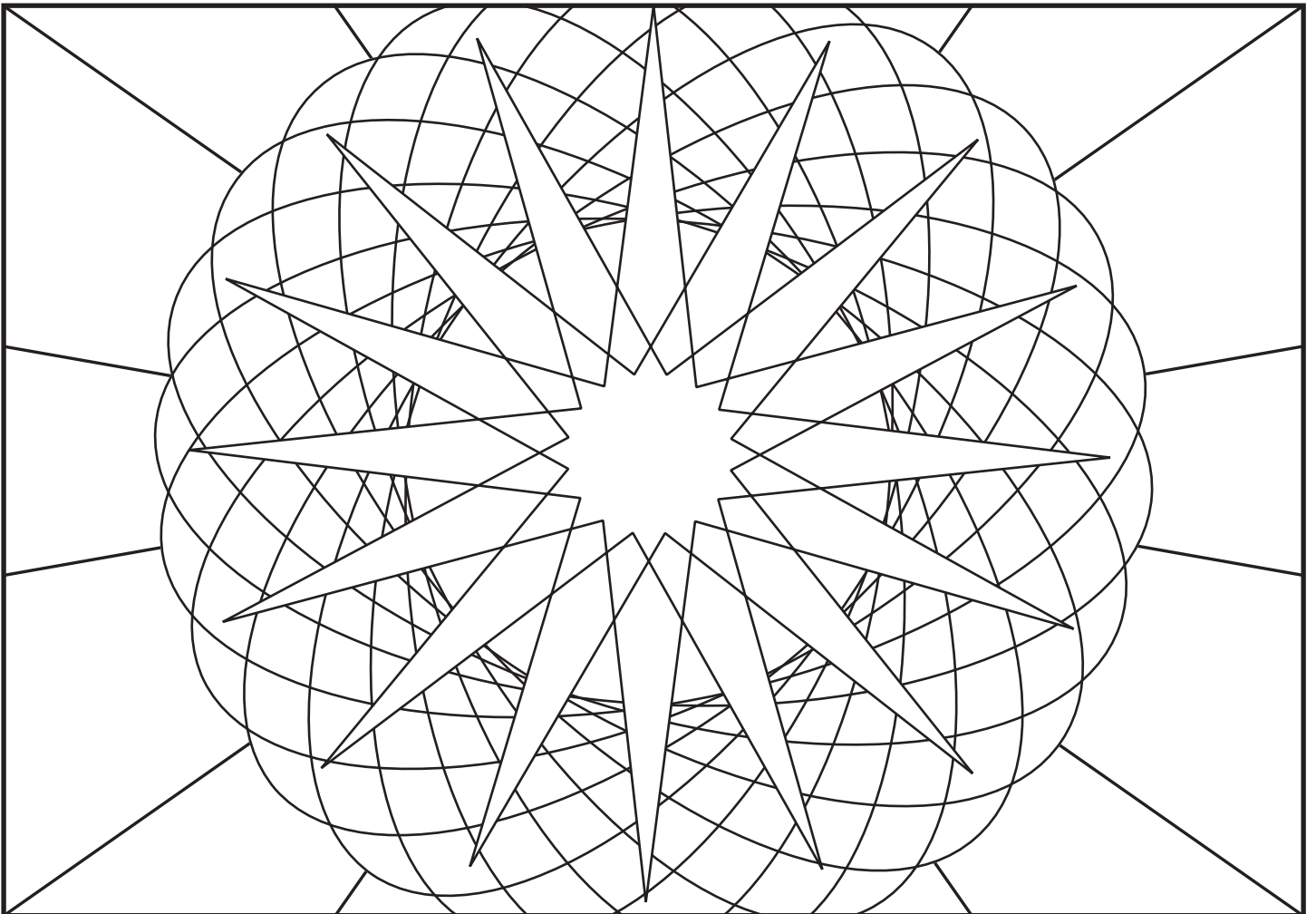
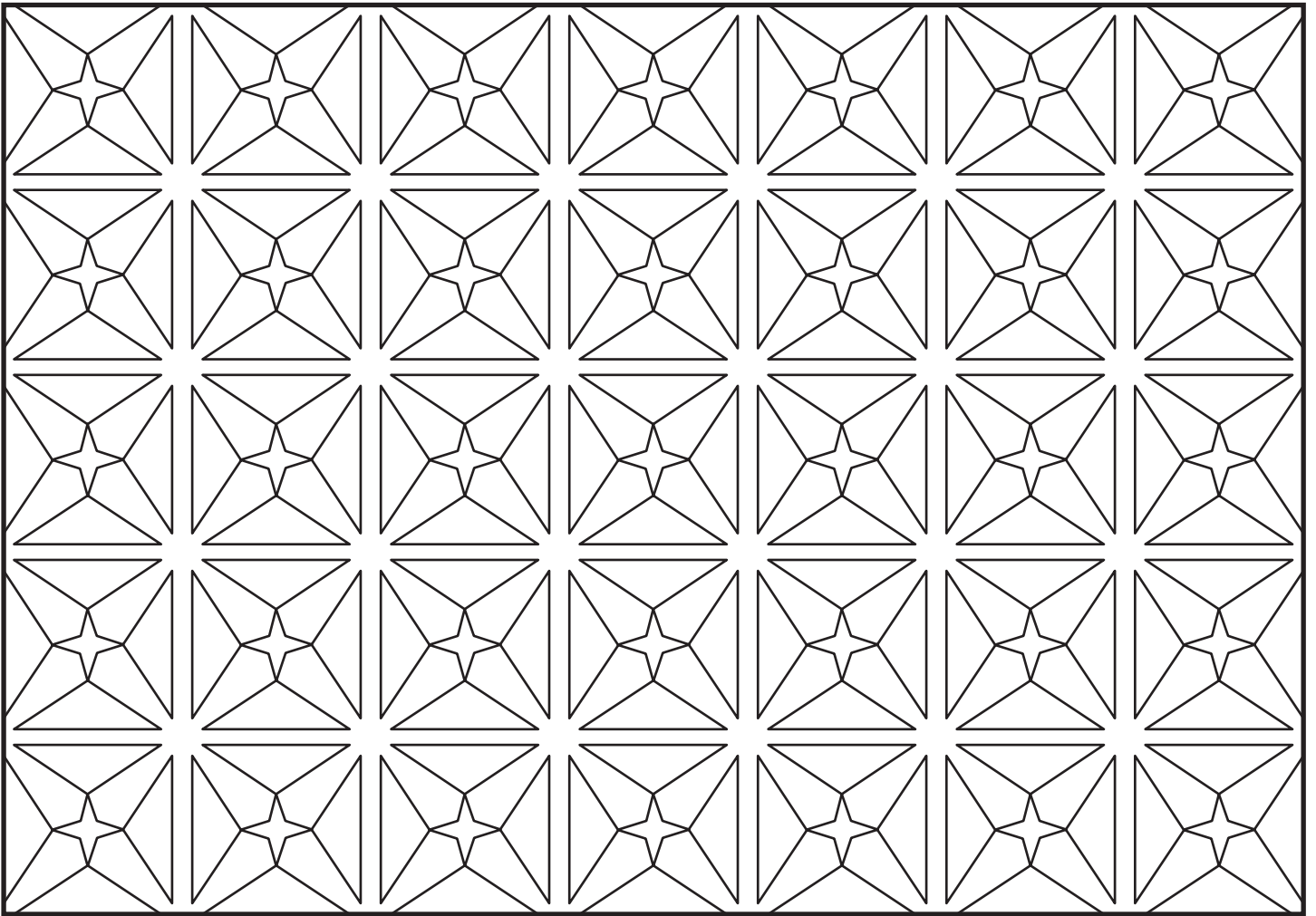


Sudoku - Medium Puzzle 4

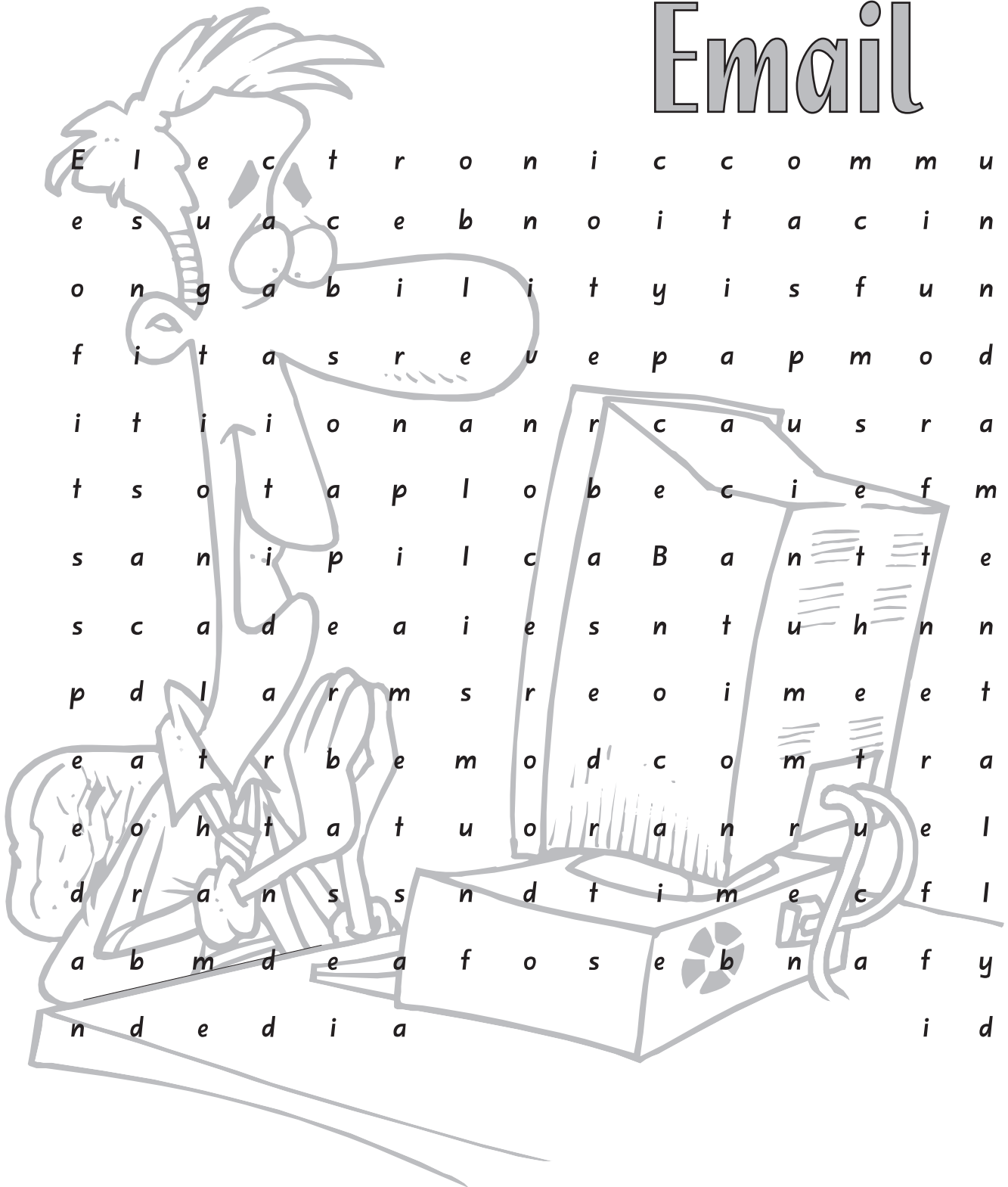
	2				3	1	8	
3	9		2				6	5
				6	1			7
		9	8		4	7		
1				3		8		
		5	6			9		
4	5				8			
			7	2			4	
		3			6	5		2

Sudoku - Medium Puzzle 5

1			8		3			
		2					6	1
8			6		7	2		3
							6	3
	6			4				7
3	5		7	6	9			
		7	4					5
		9					3	4
	2			8	5		1	



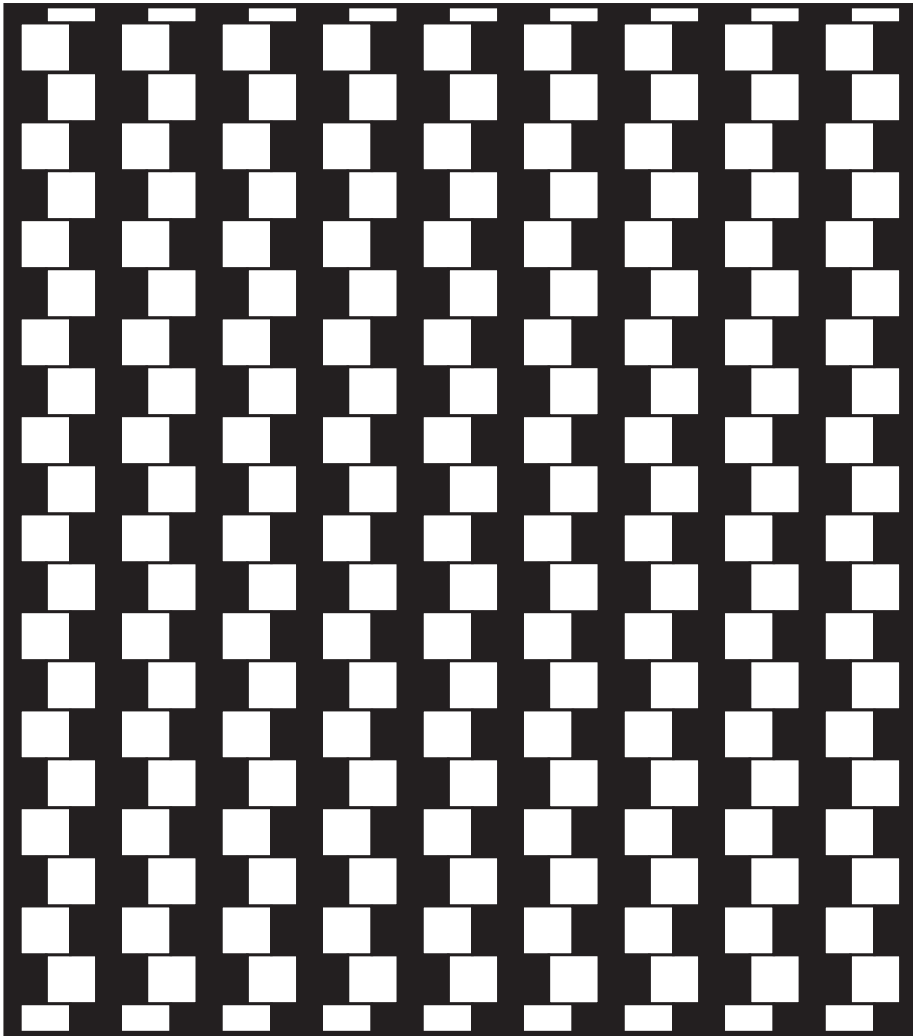
Email



E l e c t r o n i c c o m m u
e s u a c e b n o i t a c i n
o n g a b i l i t y i s f u n
f i t a s r e u e p a p m o d
i t i i o n a n r c a u s r a
t s o t a p l o b e c i e f m
s a n i p i l c a B a n t t e
s c a d e a i e s n t u h n n
p d l a r m s r e o i m e e t
e a t r b e m o d c o m t r a
e o h t a t u o r a n r u e l
d r a n s s n d t i m e c f l
a b m d e a f o s e b n a f y
n d e d i a i d

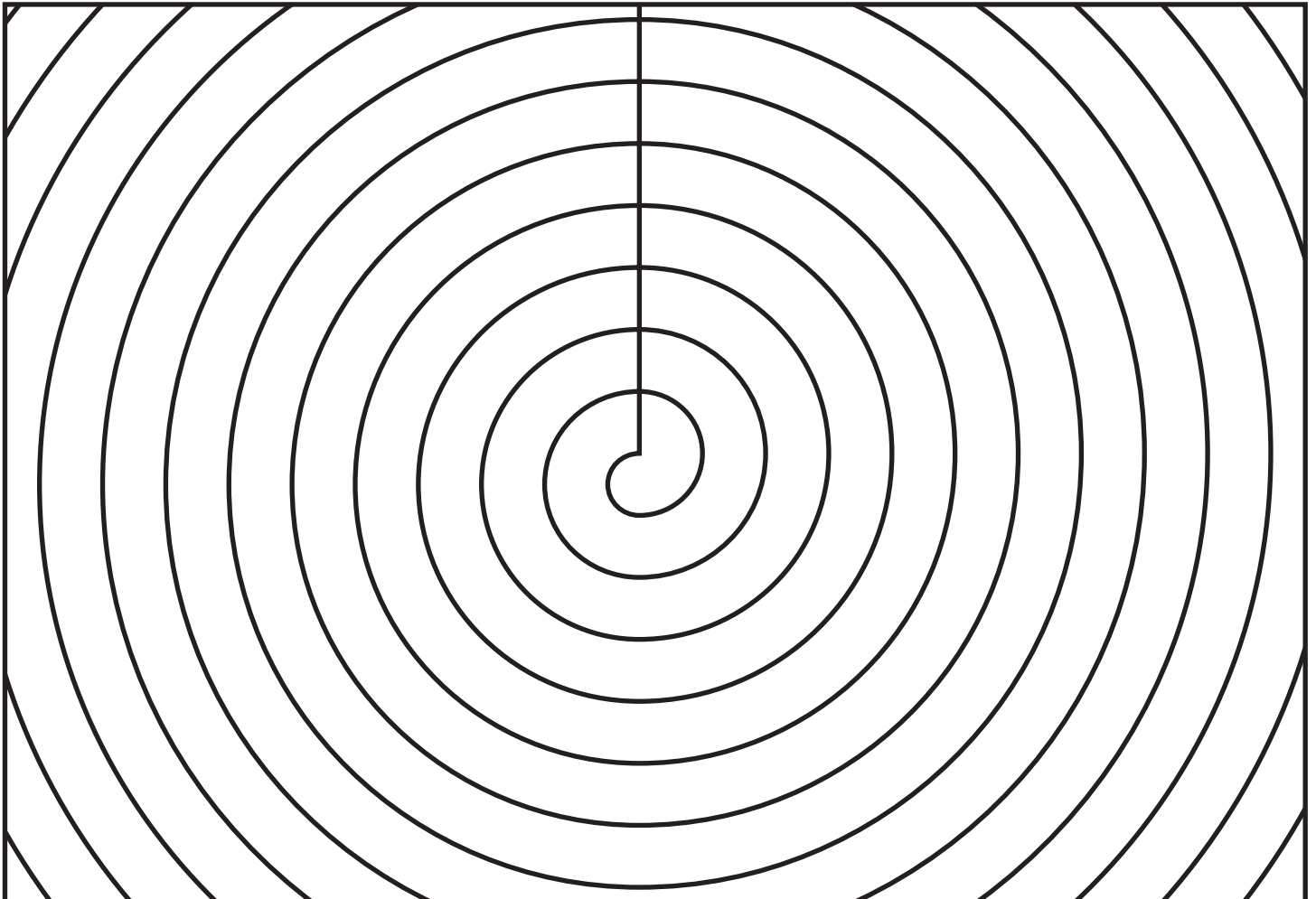
Starting at the top left-hand corner, draw a line as you follow these sentences about email.
Don't cross over any lines.

Electronic communication, because of its speed and broadcasting ability, is fundamentally different from paper-based communication. Because the turnaround time can be so fast, email is more conversational than traditional paper-based media.



KEEP THIS QUIET!

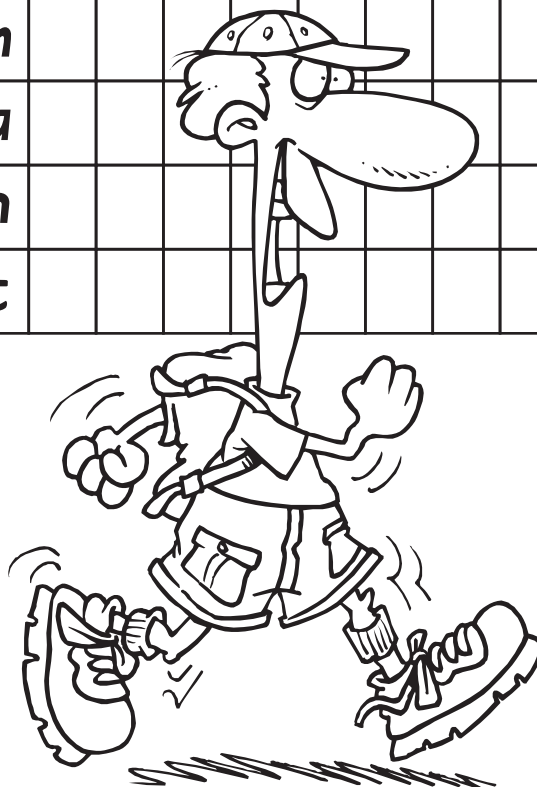
- ☆ These rows of black and white tiles are perfectly even.
- ☆ Place a ruler along the rows to prove it.
- ☆ Add colour to the white tiles to see if it changes the illusion.



DR SCHWEITZER

Start at the top left corner. Moving right, left, up or down, try to make sense of it.
Drawing a line as you might help, as no letters are used twice.

D	r	S	c	h			m	a	l	l	n	o	n	h	a	n	l	i	f
				w	e	i	s	d						u	m	e	b	A	e
						t	z	e	r	a	p	s				e	t	t	h
			e	l	e	r	e	r	a	l	w	s					h	a	a
d	e	s	a		d					a	y		n	w	o	l	f	d	
H		d	s	t	a	n						n	i						
e	w	l	p	e	t	i			n	r	e	d	d	o		u	l	d	
	o	u	a	s	i	h	t	a	e			n	u	o	r	o	e	b	
				d						c	a	d	r	s	w	c			
	l	t			e	r				m	e	r	o	a		a			
a	e	e	e	b		a	t	h	s	o		d	b			p	t	u	
w				a	t	t	r	e	s	s	a	l	g	g	n			r	
o	r	m			n	h								i			e		
					a	a								k		d	a	d	
			h	a	n	n								n	i	r	y	b	
			s	u	r	c													



-OUTWORDS

C	W	R	T	O	U	T	R	A	T	E	G	A	R	T	U	O	U	T	S	P	E	D	R	L
A	X	K	F	Q	W	E	L	F	T	U	O	R	O	O	O	J	W	T	Y	P	H	L	A	N
G	O	V	C	O	B	O	P	M	U	J	T	U	O	U	U	Z	O	K	A	N	O	D	E	E
O	U	P	A	L	O	U	T	S	E	L	L	T	T	T	T	A	U	L	U	H	D	H	C	
U	T	G	U	S	B	S	T	T	U	A	M	B	F	D	D	G	F	O	T	A	P	Q	T	A
T	D	L	U	A	H	T	U	O	E	O	R	Y	O	A	R	R	U	L	U	R	T	D	U	R
R	O	C	N	O	S	C	U	A	M	A	U	U	I	T	A	E	A	N	O	T	O	T	O	T
A	O	E	C	A	R	A	W	O	G	Q	T	T	Q	E	G	N	W	W	S	W	V	D	U	U
N	R	U	C	I	G	T	O	Q	M	D	T	S	I	N	D	Q	O	O	T	S	U	O	E	O
K	O	T	T	I	E	U	P	C	O	O	V	O	Y	N	X	M	U	U	U	U	E	T	Q	
O	U	U	B	T	O	E	N	H	H	U	M	Y	D	G	I	T	I	T	T	O	P	Y	E	
O	O	U	T	L	I	V	E	S	N	U	R	T	U	O	S	S	W	X	F	W	C	V	L	R
L	O	E	A	L	T	D	T	M	V	J	S	U	H	W	Z	B	I	I	G	N	O	R	P	G
T	U	S	O	H	A	U	S	O	O	Y	O	O	A	U	O	U	T	L	I	N	E	R	O	K
U	T	Y	U	U	O	I	U	X	U	C	U	L	P	T	N	S	S	V	K	B	Z	U	N	P
O	D	V	T	W	T	T	D	B	T	T	T	E	D	I	S	T	U	O	U	T	T	A	K	E
U	R	O	P	I	W	W	T	V	C	U	K	U	O	O	O	U	T	S	O	L	D	N	R	C
T	A	U	L	E	P	U	A	O	O	W	E	I	O	U	U	A	P	E	E	K	T	U	O	A
R	W	T	A	F	O	T	U	L	O	B	P	L	L	T	T	O	U	T	S	W	A	M	T	F
O	G	R	Y	O	I	T	U	R	K	U	T	D	L	L	P	D	S	T	I	S	T	U	O	T
A	F	U	Q	Q	P	C	G	O	X	C	T	V	A	E	O	C	O	U	T	L	I	E	S	U
R	K	S	A	O	U	T	S	W	I	M	U	S	F	A	U	G	C	E	C	A	P	T	U	O
U	M	H	S	O	U	T	P	U	T	S	N	Q	T	P	R	O	U	T	S	A	N	G	L	S
E	S	T	L	O	U	T	Y	E	L	L	I	R	U	A	O	U	T	G	A	I	N	M	M	J
H	S	I	F	T	U	O	W	E	R	G	T	U	O	P	Y	O	U	T	R	I	D	E	U	N

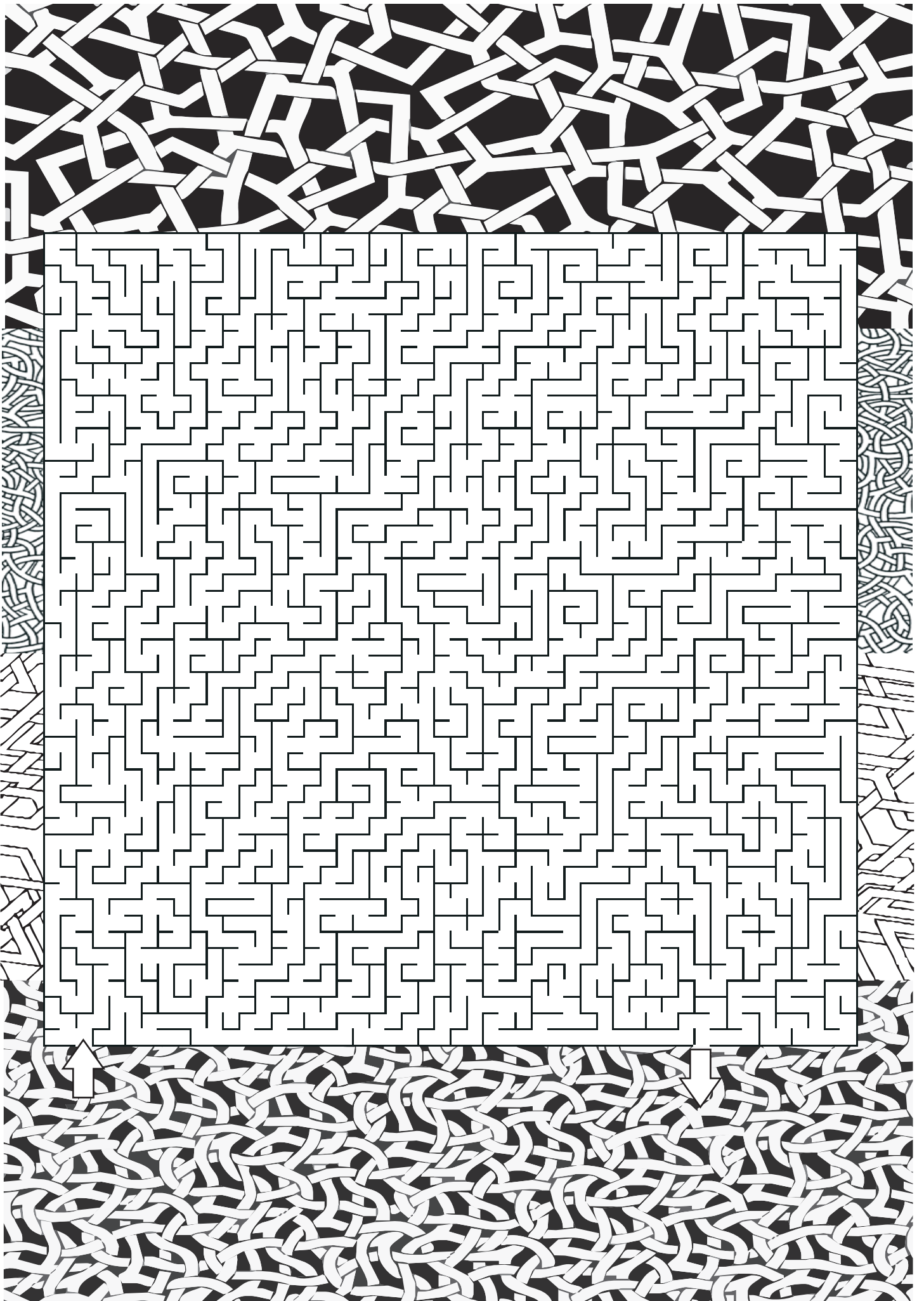
- OUTCROP
- OUTLINE
- OUTWITS
- OUTWEAR
- OUTWORN
- OUTRUNS
- OUTTRACE
- OUTPLAY
- OUTLETS
- OUTGREW
- OUTSWAM
- OUTSIDE
- OUTLIES
- OUTRAGE
- OUTROAR
- OUTPACE
- OUTRUSH
- OUTSHOT
- OUTSWIM
- OUTSANG

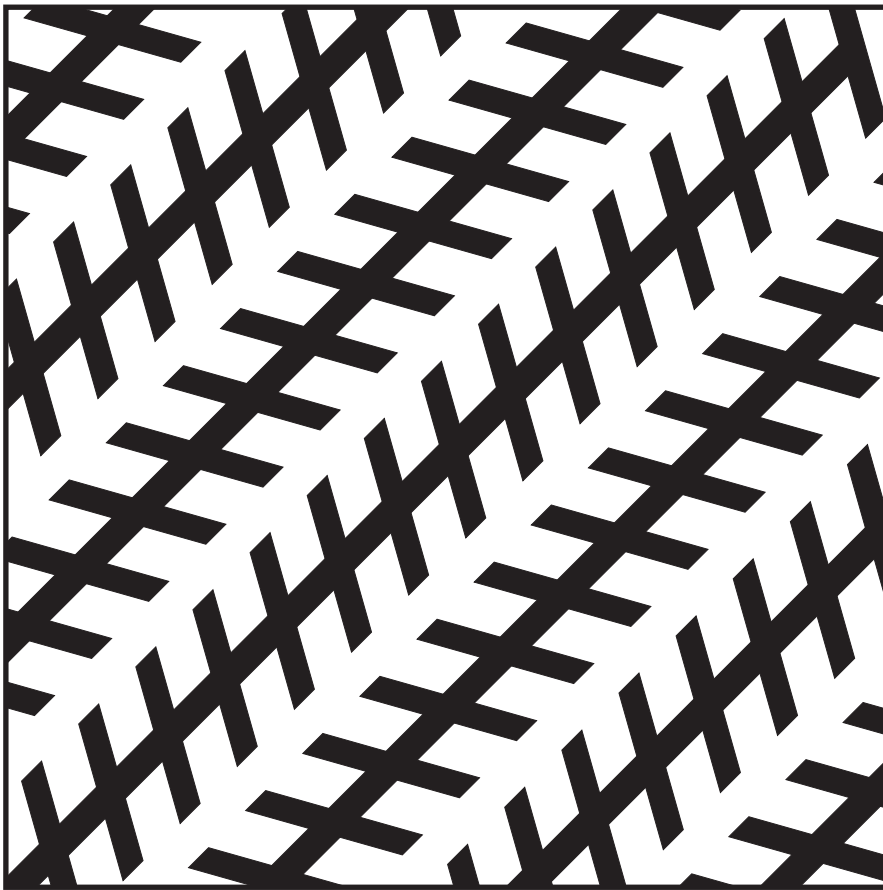
- OUTGUNS
- OUTJUMP
- OUTBUYS
- OUTDATE
- OUTFLOW
- OUTGROW
- OUTINGS
- OUTHUNT
- OUTKILL
- OUTLEAP
- OUTDOES
- OUTLAYS
- OUTSPED
- OUTRODE
- OUTTALK
- OUTVOTE
- OUTFALL
- OUTFITS
- OUTDRAW
- OUTDRAG



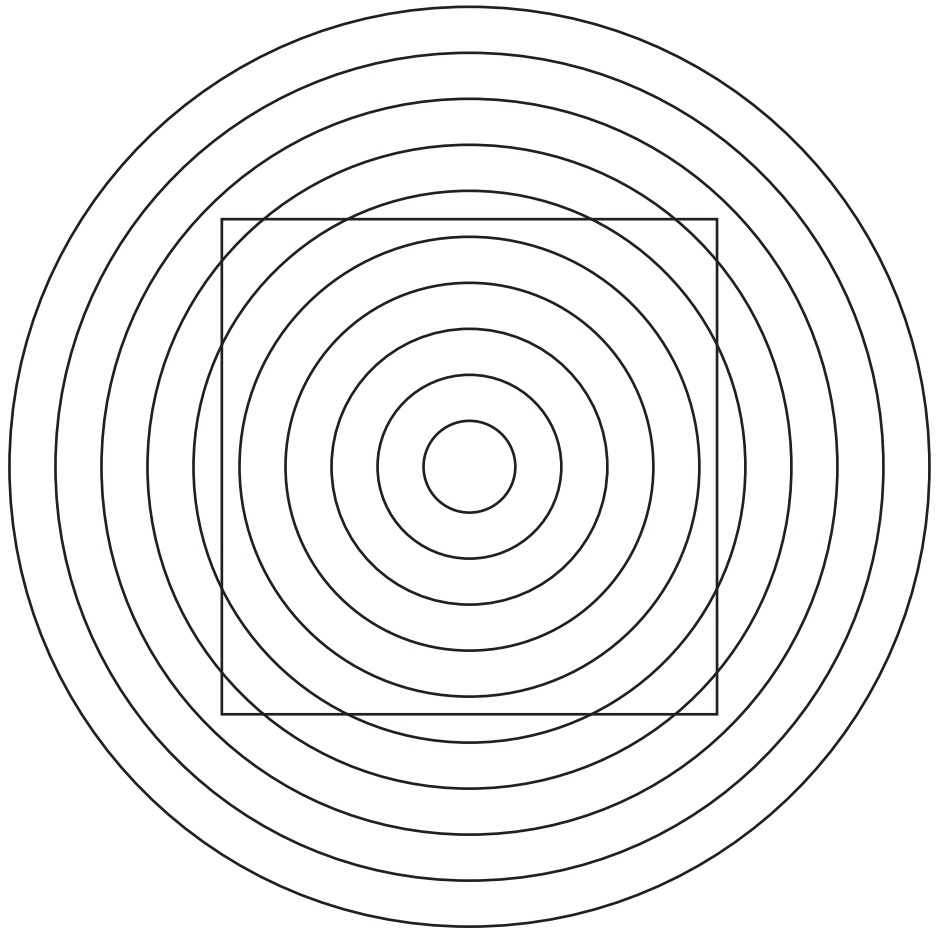
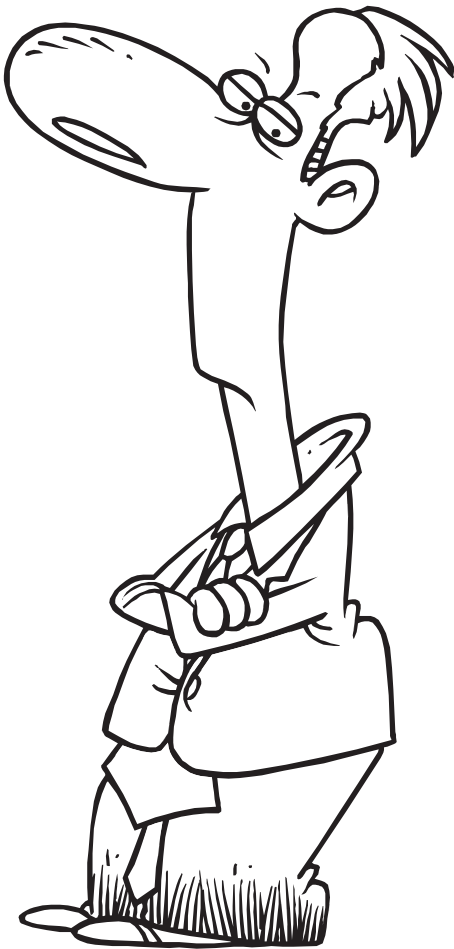
- OUTLAST
- OUTLIVE
- OUTBIDS
- OUTCOME
- OUTDONE
- OUTEATS
- OUTACTS
- OUTCAST
- OUTLAWS
- OUTLOOK
- OUTBACK
- OUTSELL
- OUTLAID
- OUTMOST
- OUTBRAG
- OUTCOOK
- OUTDOOR
- OUTDREW
- OUTFLEW
- OUTHAUL

- OUTRANK
- OUTPITY
- OUTPOUR
- OUTSTAY
- OUTRATE
- OUTWALK
- OUTFACE
- OUTPUTS
- OUTYELL
- OUTWARD
- OUTSOLD
- OUTLAND
- OUTKEEP
- OUTTAKE
- OUTHEAR
- OUTPOST
- OUTSITS
- OUTGAIN
- OUTKEPT
- OUTFISH
- OUTRIDE





Check to make sure that the long slanting lines are parallel before colouring in this pattern



The sides of the square appear to be bent.
In fact they are perfectly straight.
Use colour to highlight this symmetrical pattern.



Sudoku - Hard Puzzle 1

			5					3	
		5						4	
	8	4	7	1				6	
	7	8					1		
	3		6	2					
6			8				3	9	
					7			9	
9		7	1					5	2
		2	4						

Sudoku - Hard Puzzle 2

3	2			4		1		6
					5			
9			2			7		
		9					1	
8		4	5	6			2	9
					4			
	3		8					
	7	2		1				5
		8		7		6	3	

Sudoku - Hard Puzzle 3

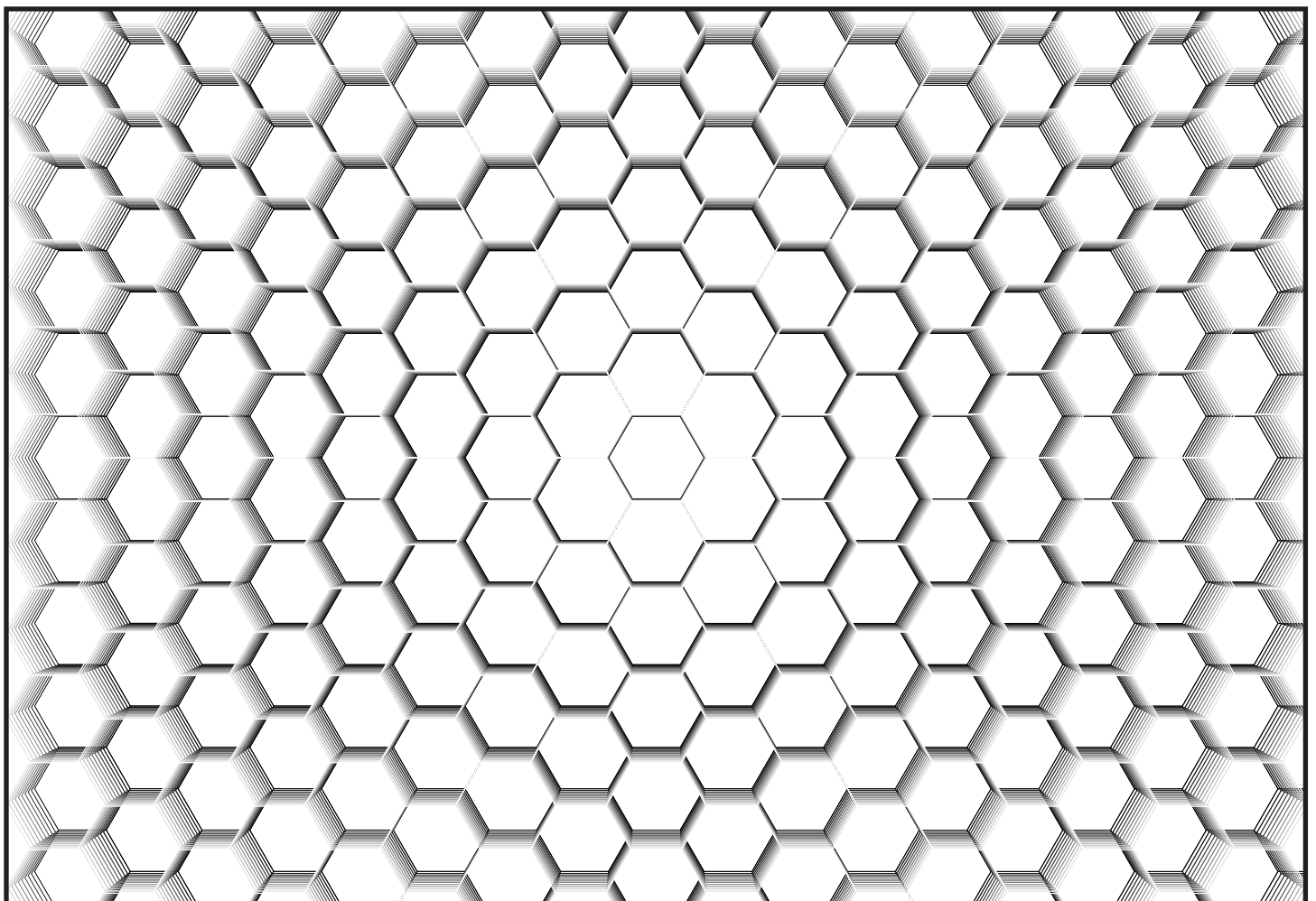
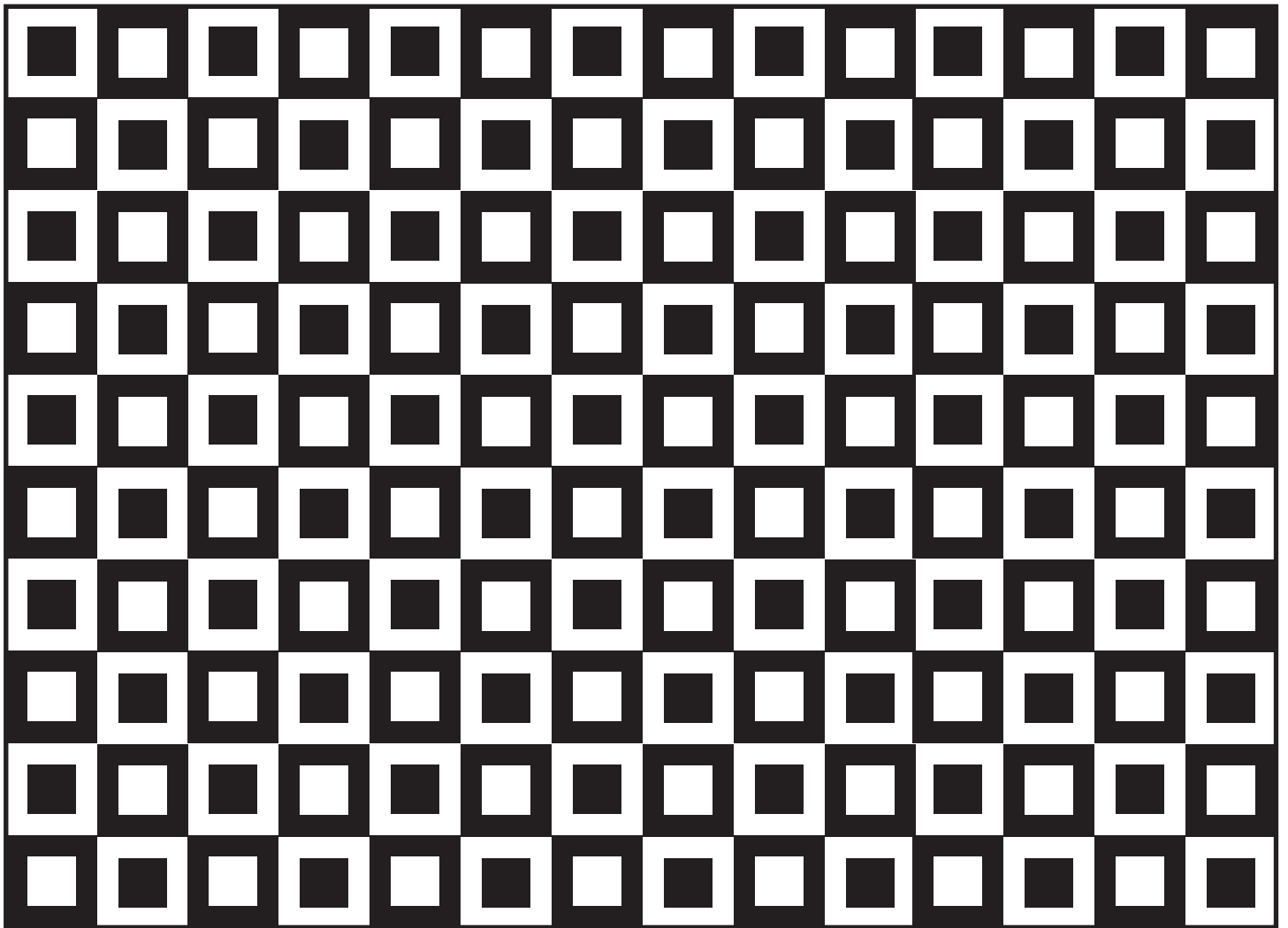
					6				
4		6		9			8	5	
	2			7			1		
6			8					1	
			3				5		
5	4				2			7	
	5							3	
9		8	7	3				2	4
		1	9						

Sudoku - Hard Puzzle 4

			8	2		5		
7	3					8	6	
		5		1		2		
		4	1				3	
9	6							7
				6	9	4		
		7	4					5
		9			6	3		
	2			8			1	

Sudoku - Hard Puzzle 5

		4	1					2
3	2				8	5		
					6	8		9
6		3			4			
				2		6		4
7					1			3
		9			5			2
		1		7				5
	7		8					9



A N I M A L S

H	S	E	L	F	A	C	E	L	L	B	C	G	E	C
C	R	E	A	T	U	R	E	U	S	S	I	T	G	D
E	R	U	B	E	A	S	T	D	B	O	T	P	L	E
G	N	I	V	I	L	T	A	K	E	S	S	W	E	A
A	N	A	M	A	L	E	M	T	I	F	E	O	R	D
N	D	I	E	E	H	P	I	N	N	E	M	R	O	O
A	D	U	V	M	S	I	N	A	G	R	O	L	V	G
M	E	A	L	A	R	V	A	I	N	T	D	D	I	N
C	R	I	T	T	E	R	M	G	Y	I	S	M	N	U
C	A	F	E	M	A	L	E	E	T	L	M	A	M	O
H	E	R	B	I	V	O	R	E	U	I	I	R	O	Y
Y	R	R	A	U	Q	P	S	O	O	Z	W	I	E	O
G	Y	A	E	R	O	V	I	T	C	E	S	N	I	V
O	P	R	E	D	A	T	O	R	S	D	E	E	T	S
E	T	A	R	B	E	T	R	E	V	N	I	A	P	Y

- ANIMATE
- BEAST
- CREATURE
- FAUNA
- FLESH
- TISSUE
- FACE
- HEAD
- ORGANISM
- LIVING
- BEING
- ADULT
- BIPED
- DOG
- CRITTER
- DEAD
- DOMESTIC

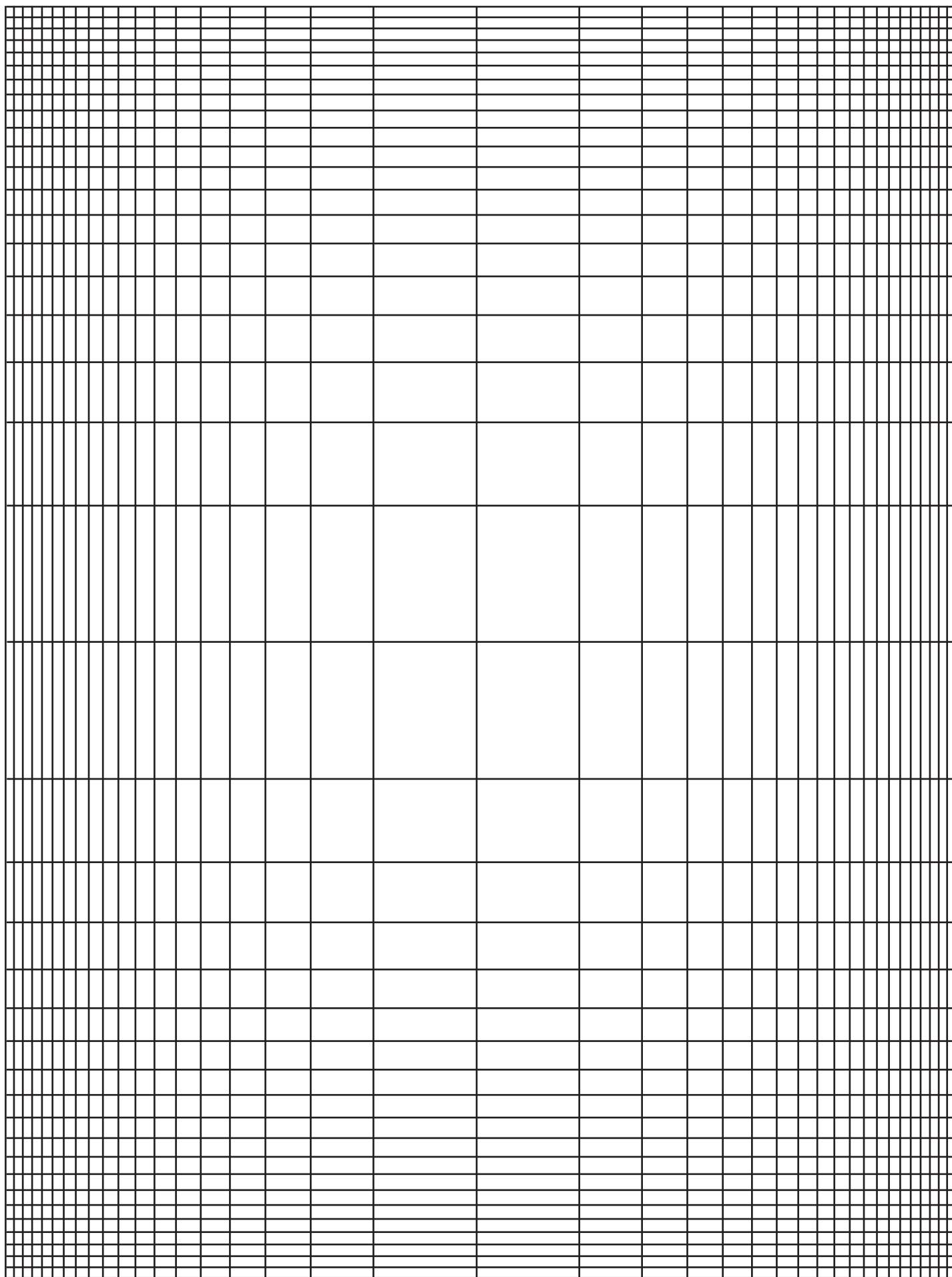


- PREDATOR
- INVERTEBRATE
- LEAVING
- MANAGE
- WORLD
- MEAN
- ZOOS
- TAKES
- SWIMS
- STEED
- PAIN
- REARED
- BEAR
- CRAVE
- SCOUT
- CRIME
- CELL



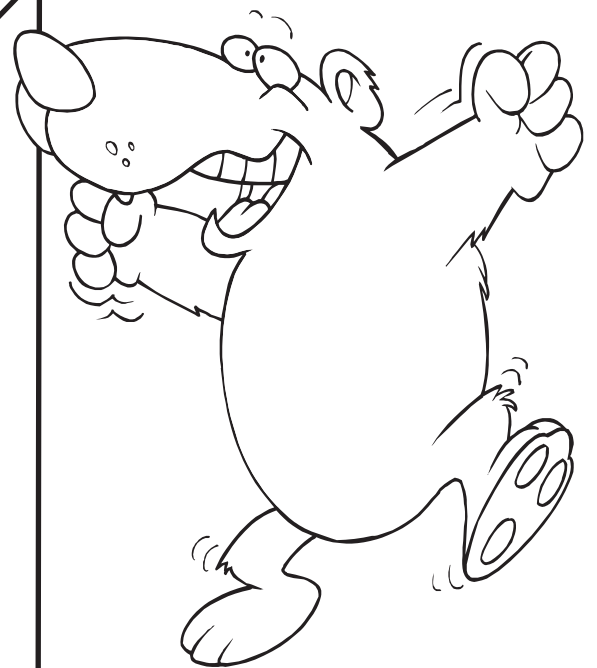
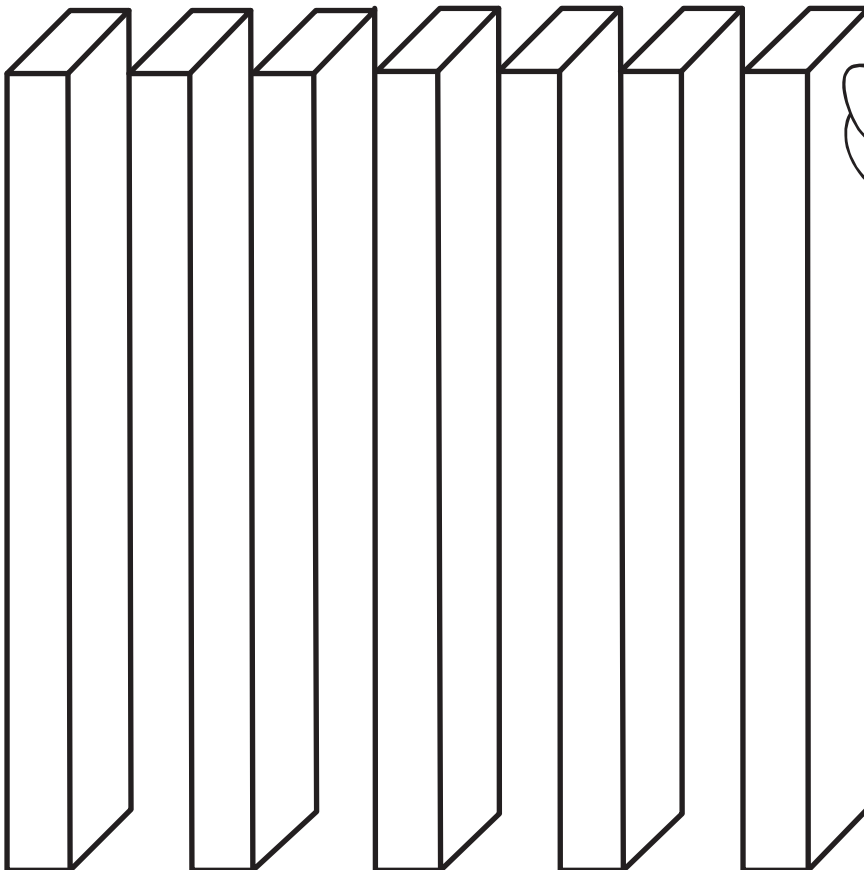
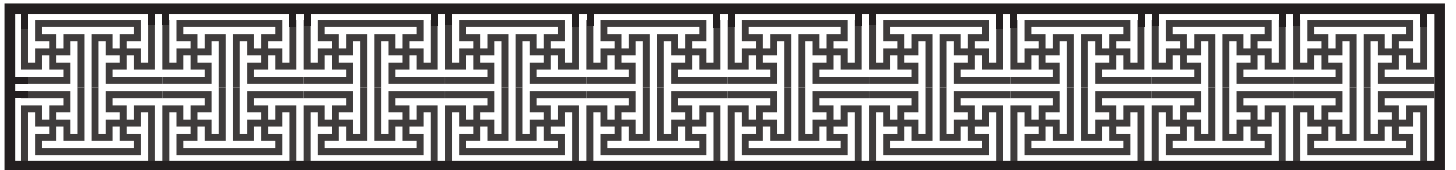
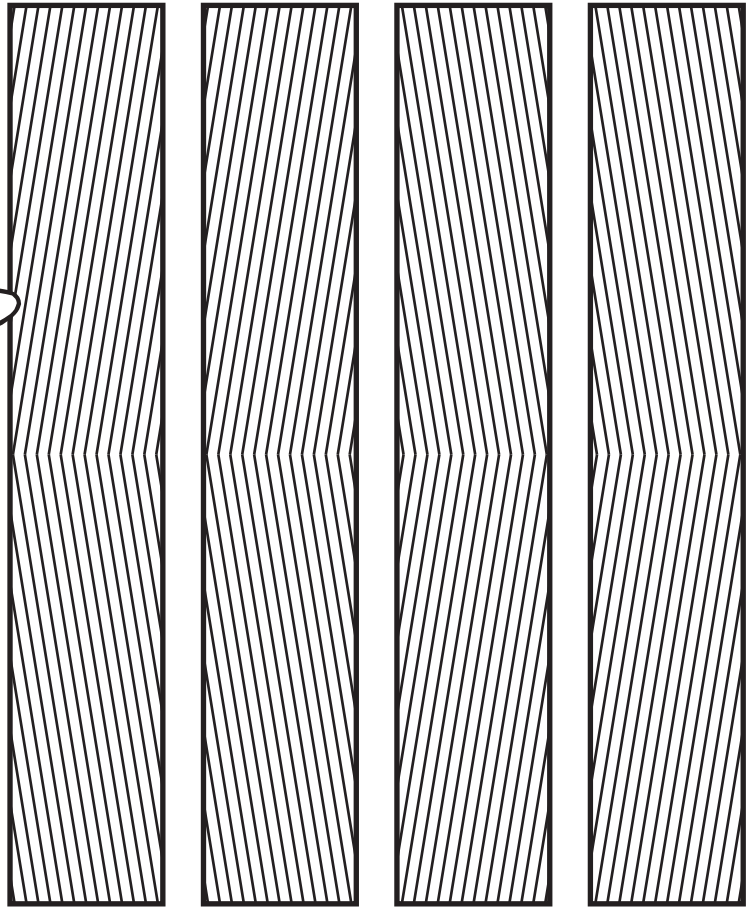
- EMBRYO
- FEMALE
- FERTILIZED
- EGG
- GIANT
- HERBIVORE
- NAME
- INSECTIVORE
- LARVA
- MALE
- MARINE
- OMNIVORE
- PET
- PREY
- QUARRY
- VERMIN
- YOUNG

The left-over letters will spell something that we are all a part of: _ _ _ _ _

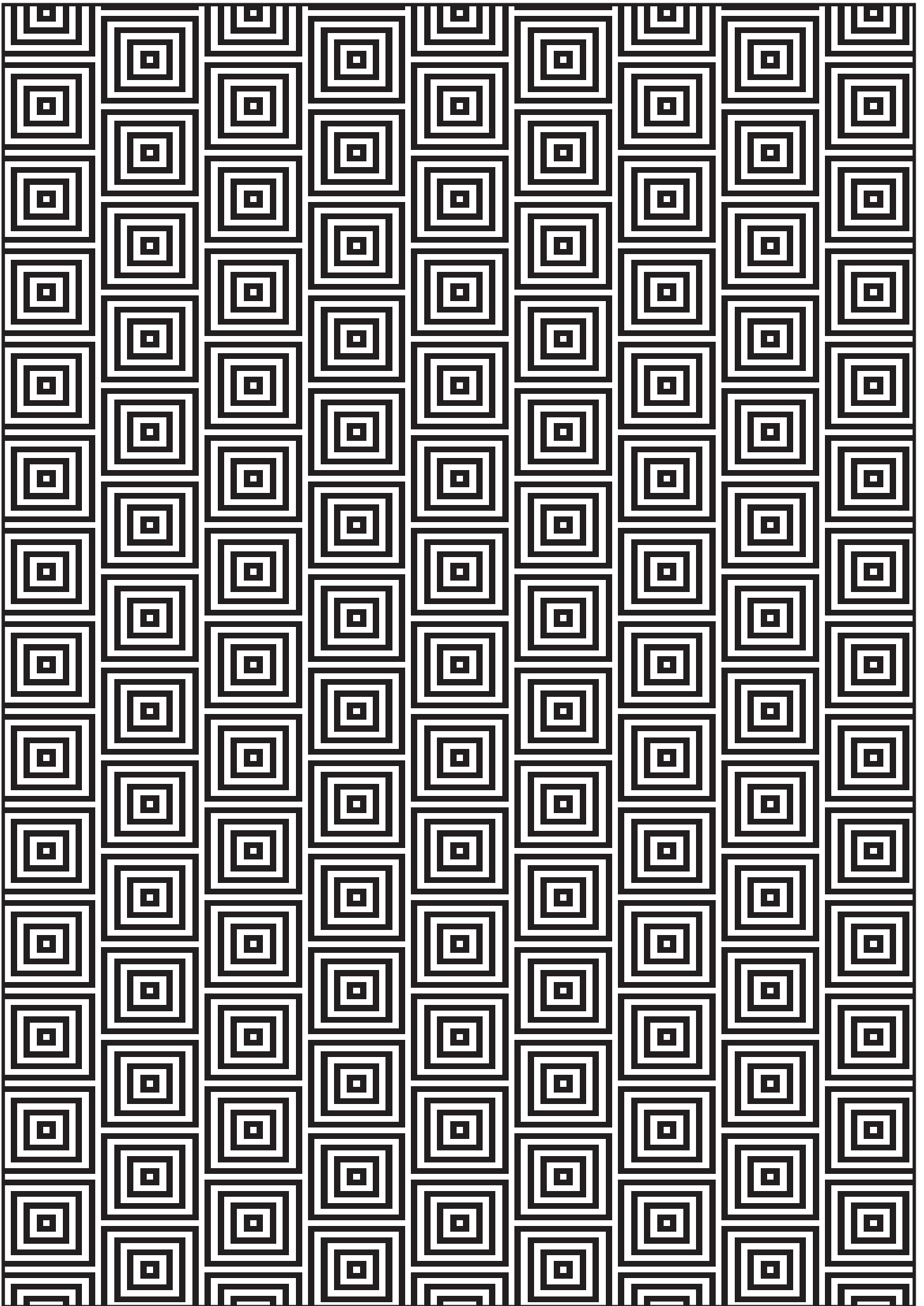


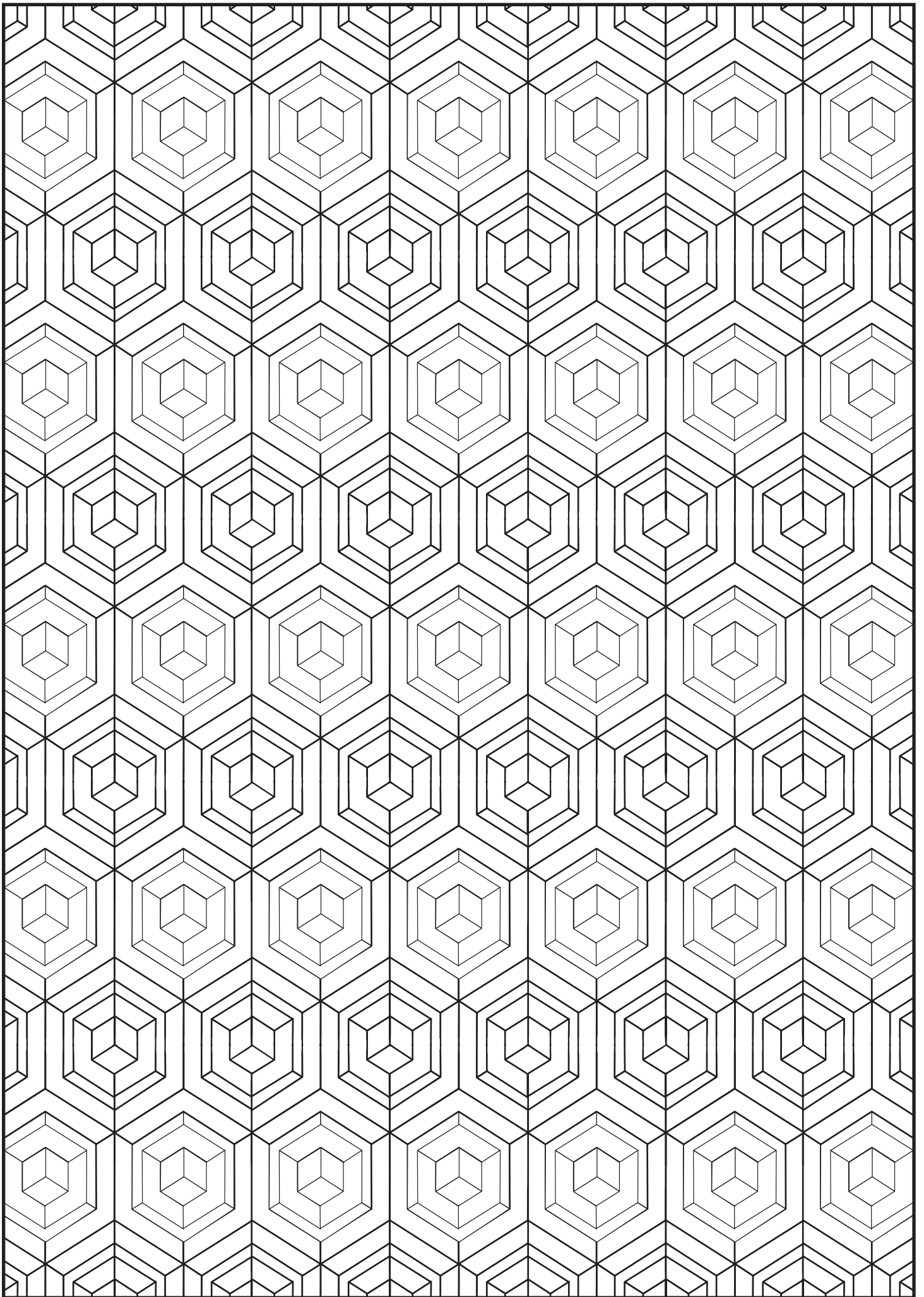
*This pattern is made up of nothing but straight-sided rectangles.
Colour every second rectangle in a checkerboard pattern and
it will get a curved, three-dimensional appearance.*

Are these four planks straight?
Before you colour them, use your ruler
to check how straight they are.

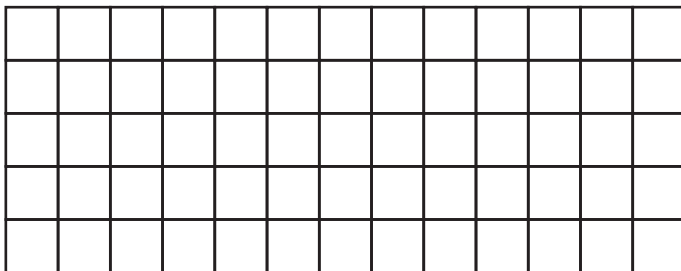
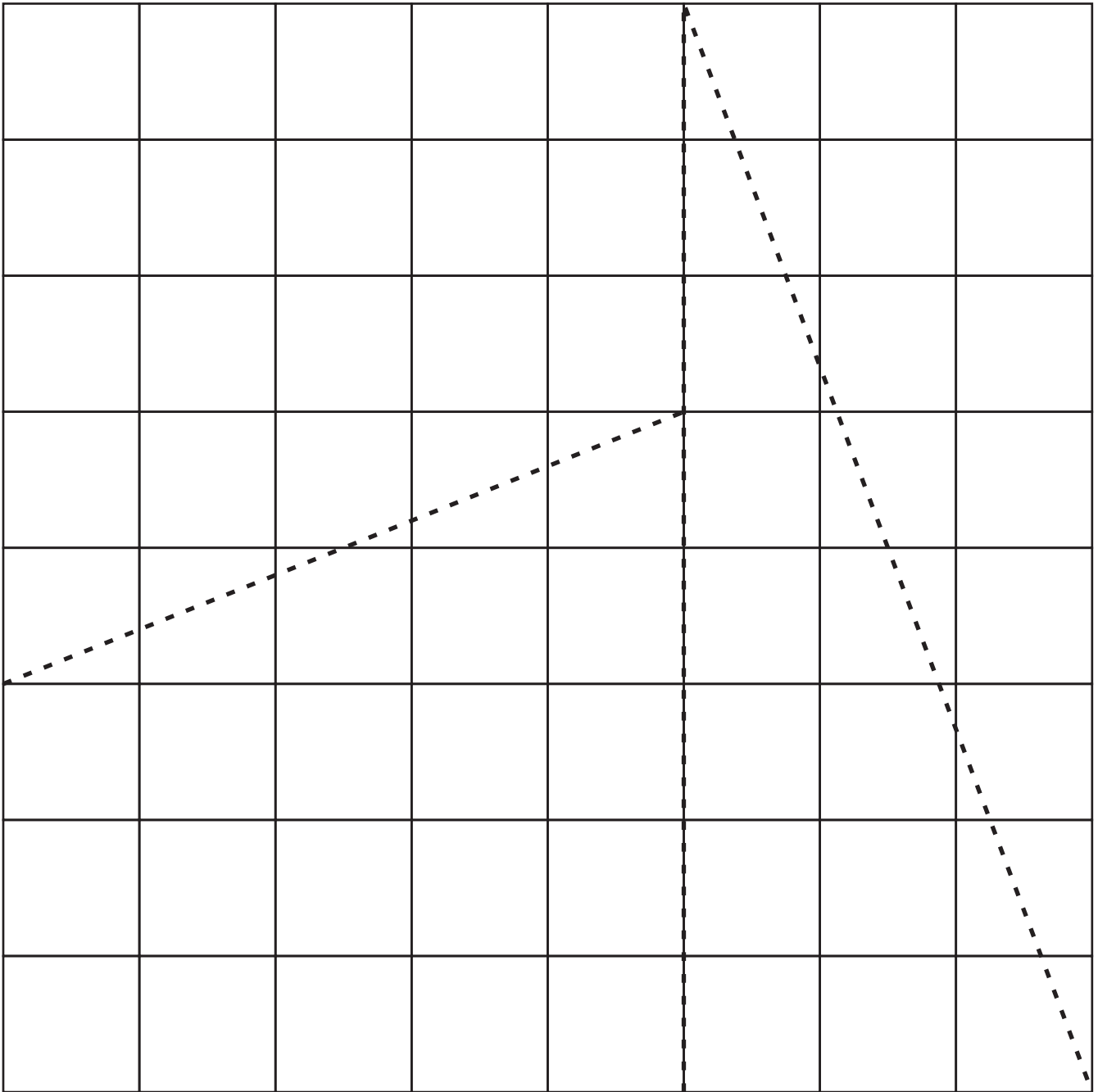


How many planks of wood are there?
Count the number along the bottom
and count the number along the top.
Try to colour the picture.





THE HIDDEN SQUARE



The large square contains 64 smaller squares in a grid of 8 X 8.

If you cut along the dotted lines and reassemble it into the shape shown on the left, it now contains 65 smaller squares in a grid of 13 X 5.

Where did the other square come from?

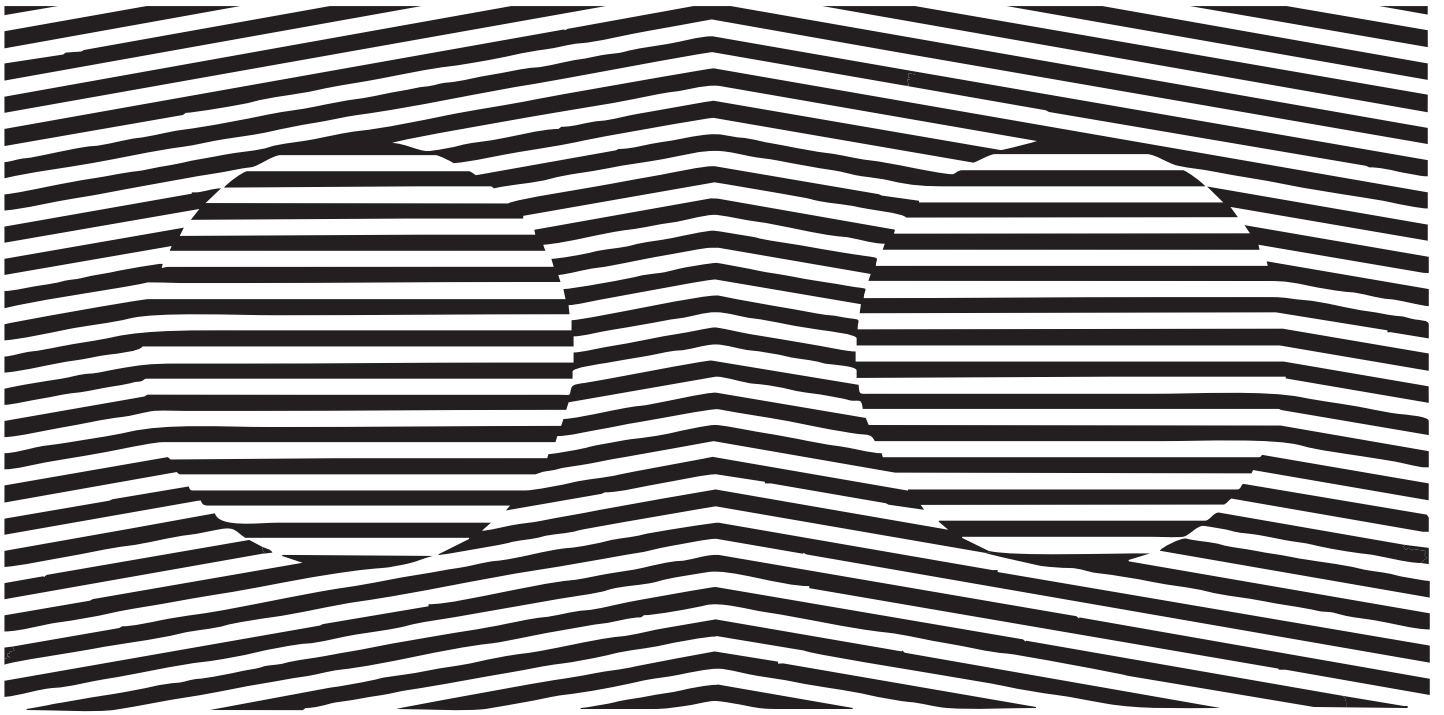
- PUBLICTRANSPORT
- WHEEL
- VEHICLE
- TUG
- TRUCKING
- TRAMWAY
- ROAD
- RAIL
- TRAILER
- CARAVAN
- SKI
- SHIPPING
- RAFT
- NAVIGATION
- MAPS
- MOVING
- VESSELS
- HORSEBOX
- HAULING
- FREIGHT
- FORWARD
- MAIL
- FLYING
- FLOATING
- FERRY
- SHIPS
- CARGO
- CART
- CHARIOT
- EXPRESS
- CABLE
- BUS
- BARGE
- AERIAL
- SAFETY
- TRAINS
- SHED
- BOATS
- HERE
- TEAMS
- LUNCH
- SPED
- WIPERS
- RATED
- BOLT
- MEET
- PATH
- SALE



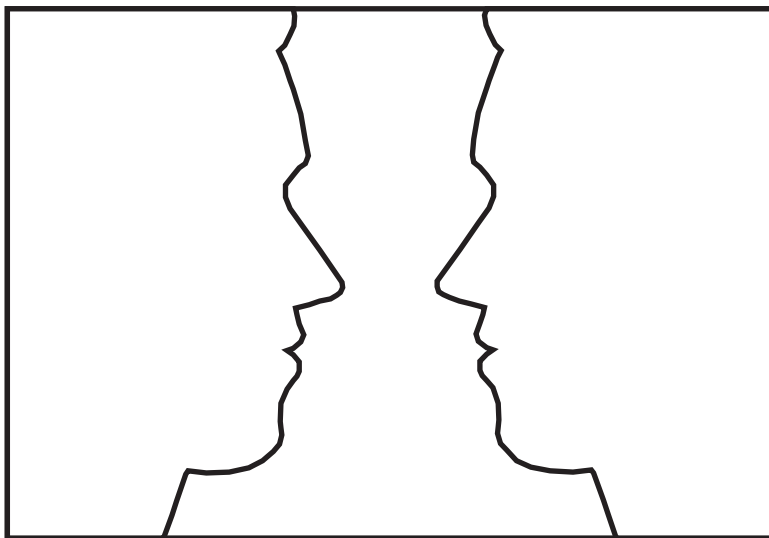
PUBLIC
TRANSPORT

V	E	S	S	E	L	S	S	E	R	P	X	E	X	A
F	F	R	F	M	H	A	U	L	I	N	G	E	O	E
L	M	R	C	O	O	M	E	L	B	A	C	G	B	R
O	B	A	E	V	R	C	A	R	A	V	A	N	E	I
A	R	A	G	I	S	W	E	P	S	I	R	I	S	A
T	V	S	R	N	G	L	A	R	S	G	G	Y	R	L
I	F	M	I	G	I	H	E	R	E	A	O	L	O	U
N	T	A	D	A	E	P	T	A	D	T	S	F	H	N
G	R	E	R	A	I	L	P	S	H	I	P	S	S	C
T	H	T	E	W	O	L	A	I	I	O	E	F	A	H
S	Y	A	W	M	A	R	T	S	H	N	D	E	F	A
M	V	E	H	I	C	L	E	K	S	S	B	R	E	R
R	A	T	E	D	O	G	N	I	K	C	U	R	T	I
T	A	I	E	B	S	U	B	O	A	T	S	Y	Y	O
P	U	B	L	I	C	T	R	A	N	S	P	O	R	T

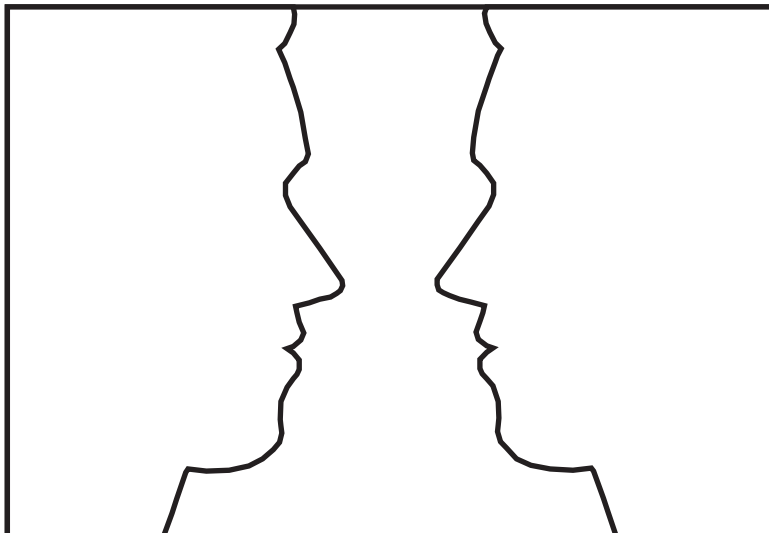
The left-over letters will spell a bunch of these:
(Very handy if you are moving).



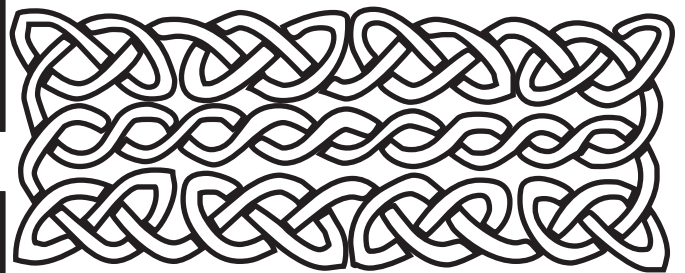
The stripes in both circles are exactly horizontal, although they appear to slope towards the centre. Finish this pattern with bright colours.



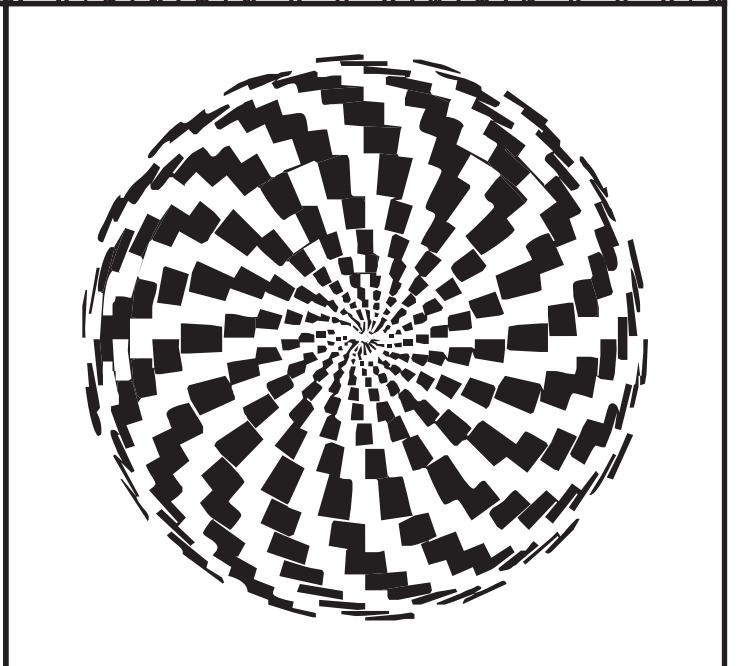
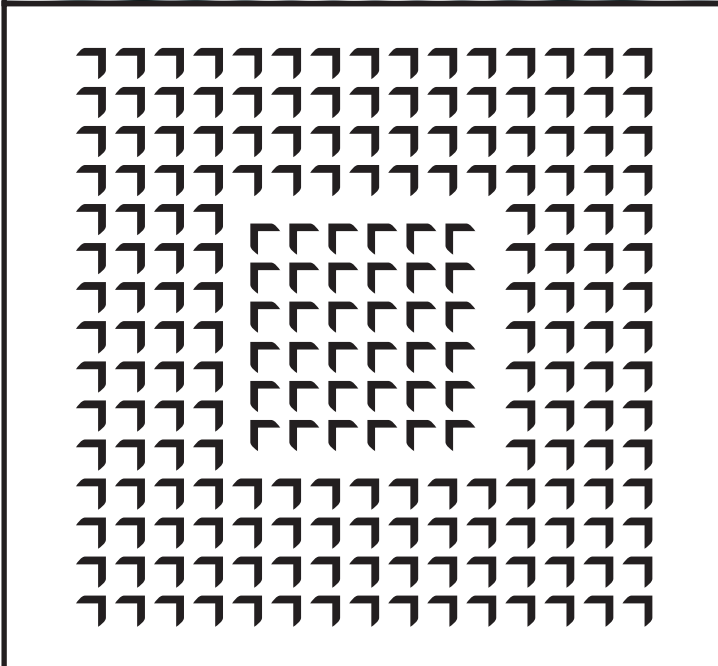
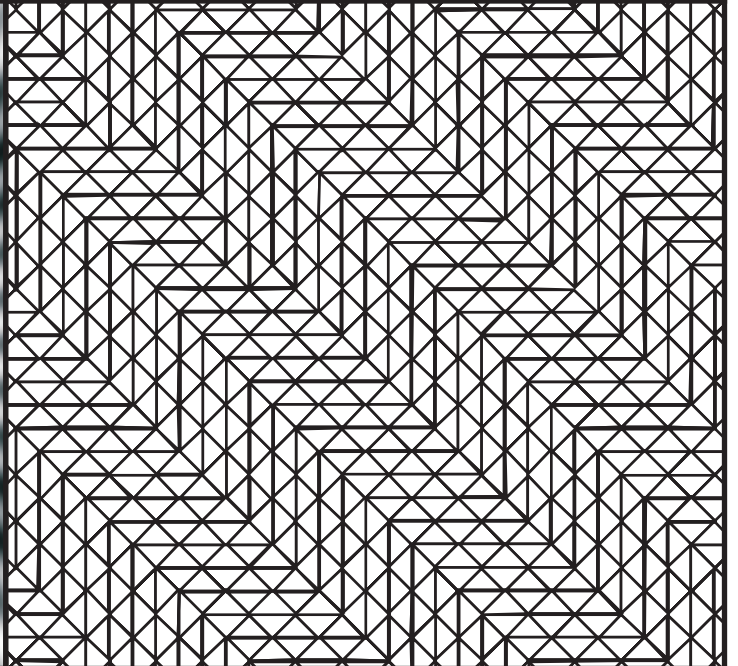
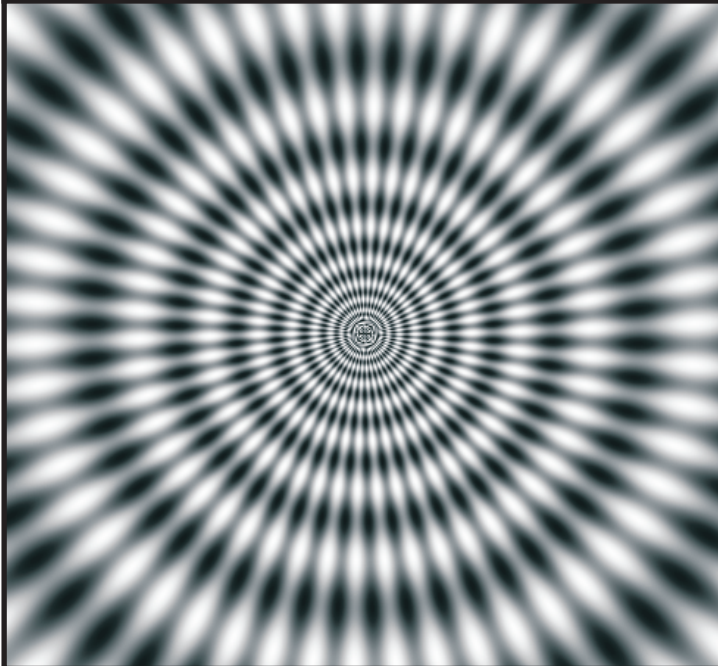
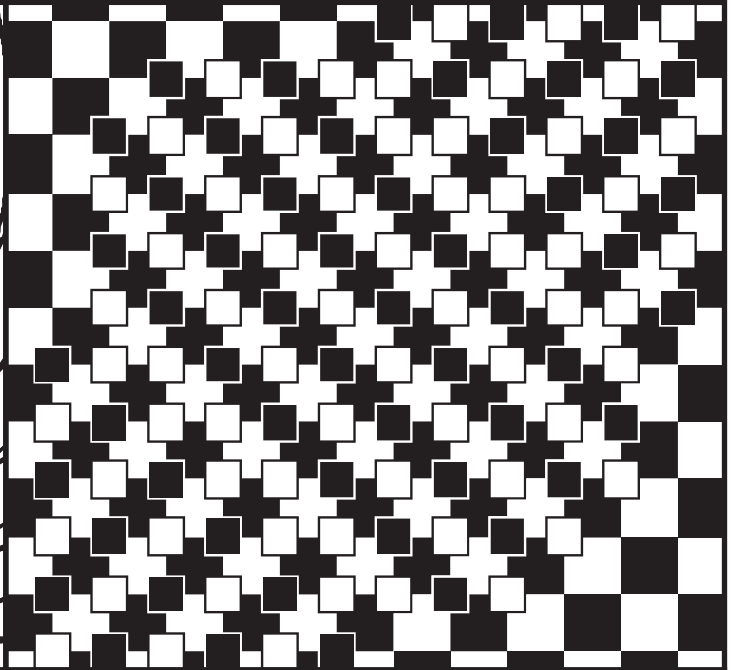
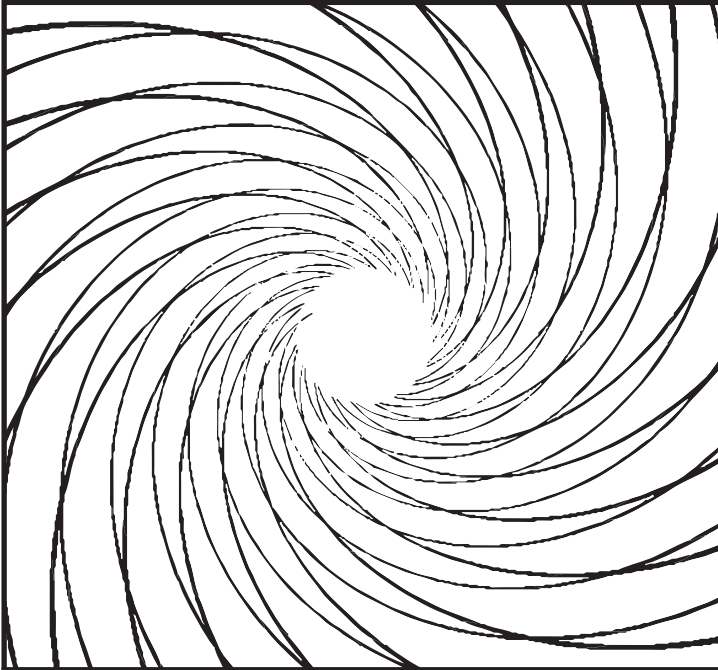
Colour the faces.



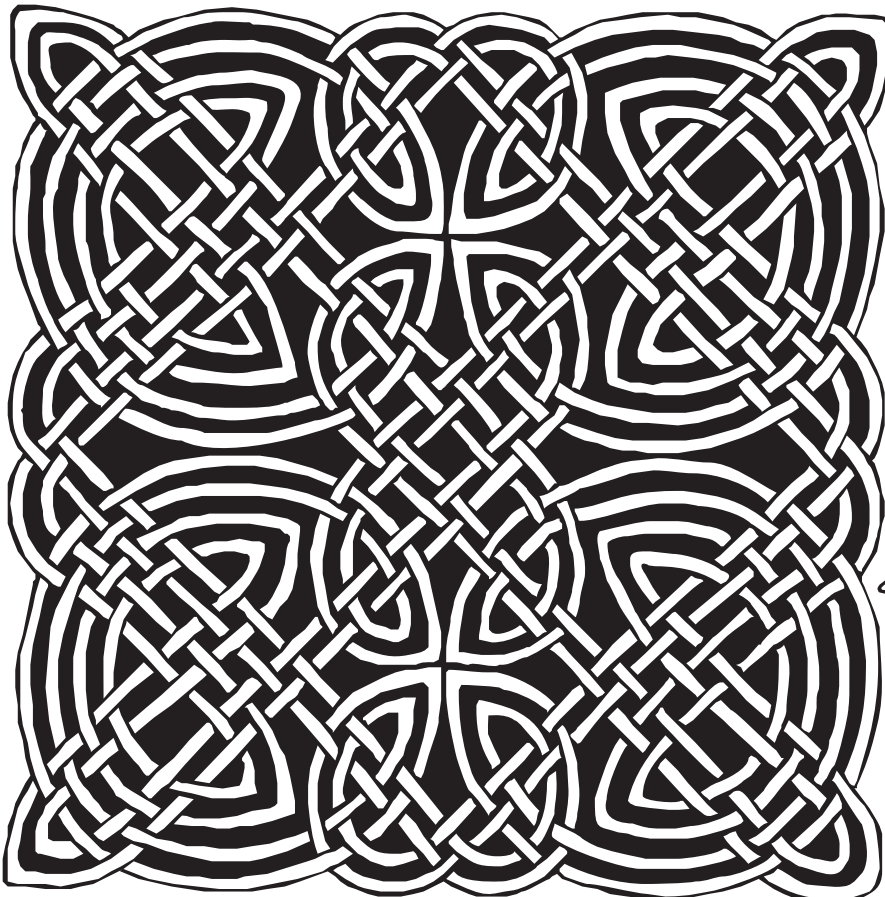
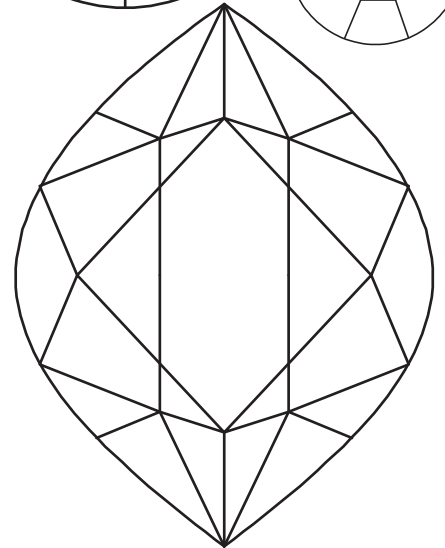
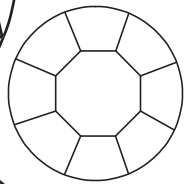
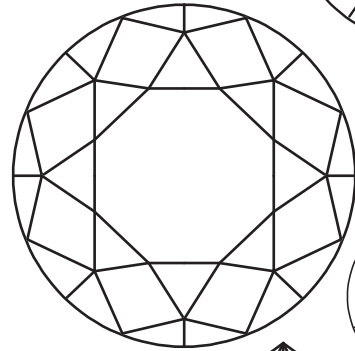
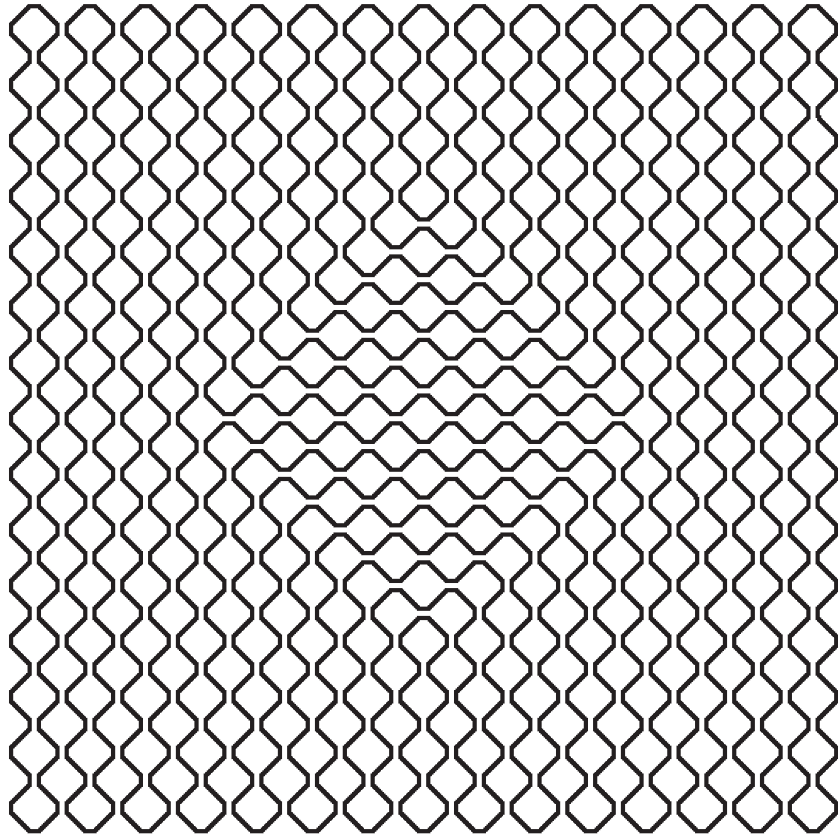
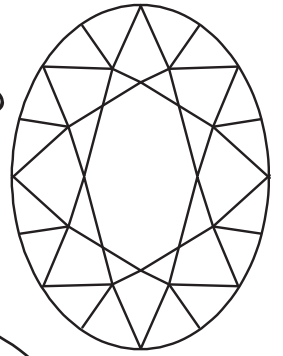
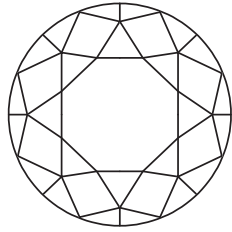
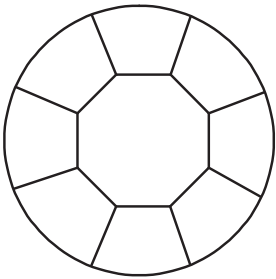
Colour the vase.



Explore these interesting designs with some colour.

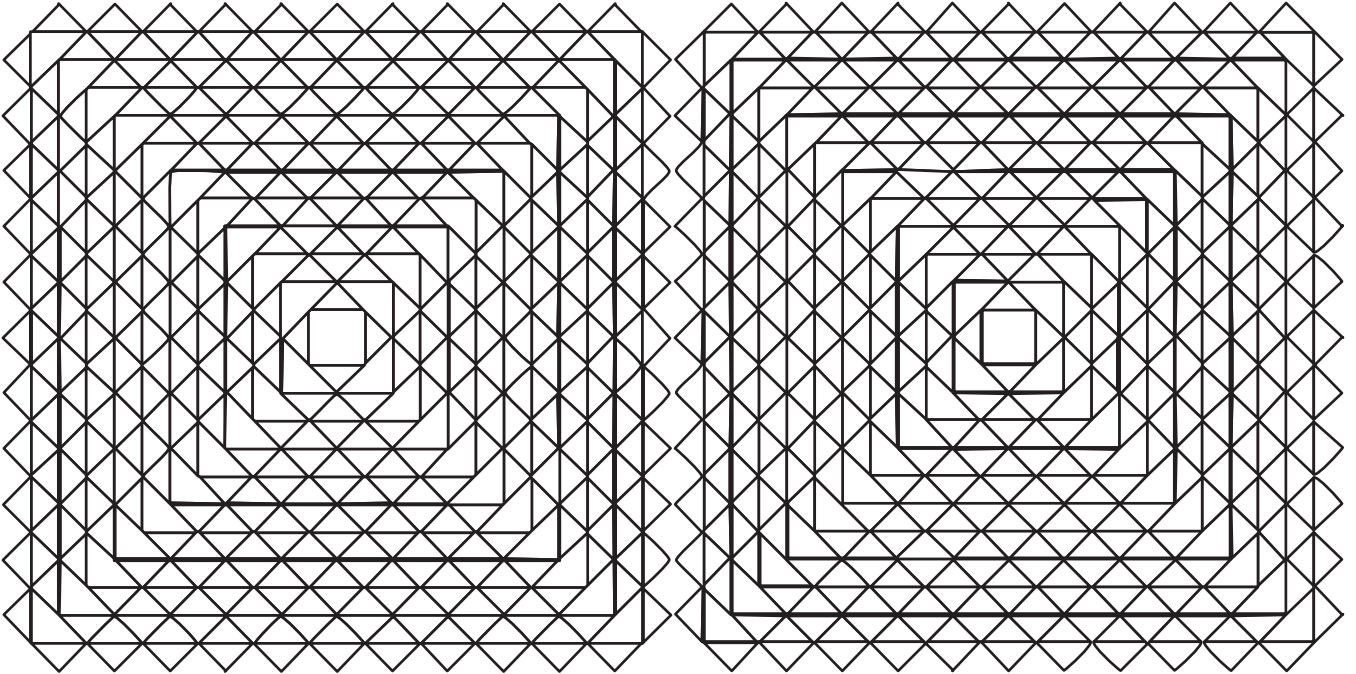
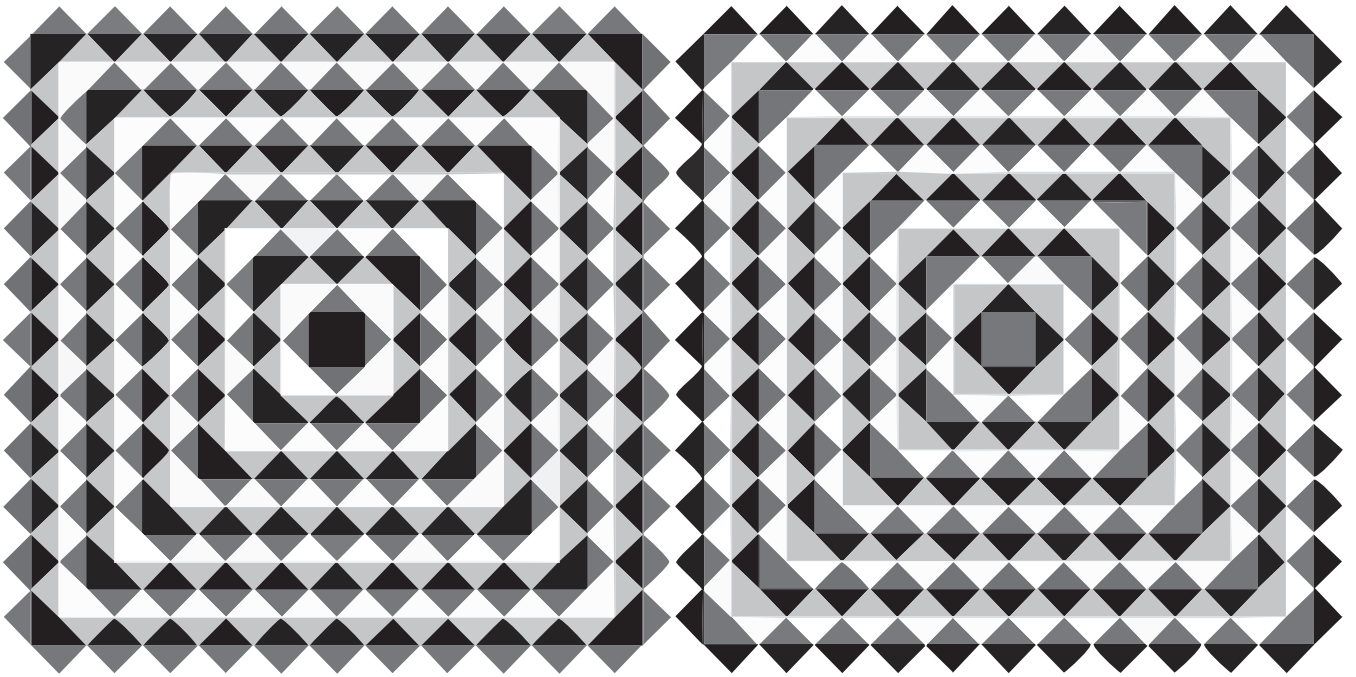


Colour each of these gemstones symmetrically.

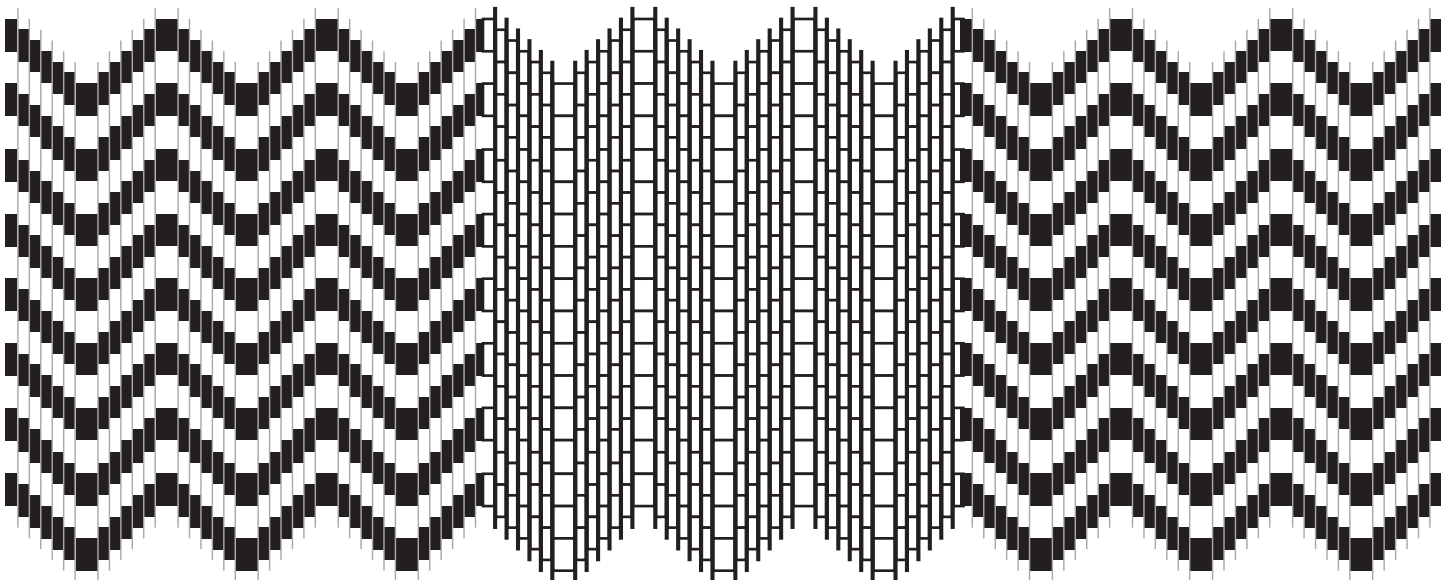


AAAAAHHHH!!





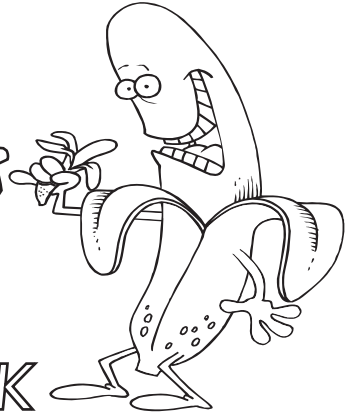
Colour the shapes above and try to match the effect of the top shapes.



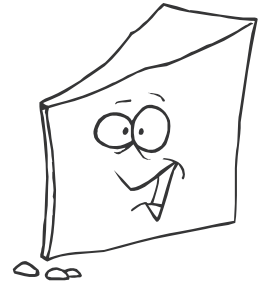
Colour the middle section to match.



CAN YOU STOMACH THIS?



S P O O N K I T C H E N R P K
 S I S A L I M E N T A T I O N
 E N E R G Y G V I A N D S T U
 C E V Y R A N I L U C O K A J
 O C L R R T O A S T G O T B T
 R O A E L B I D E R A F N L S
 P M V K N F M E A L S T E E T
 A E I O M I O D K L T S M H T
 B S C O O A S R N L R A I C O
 U T T C U T N I K U O F R A N
 L I U E T O A N U F N Y T M G
 U B A A H P P K A C O V U O U
 M L L N O U R I S H M E N T E
 E E S W E H C O O L Y M E S S
 T E E T H P R O V E N D E R S



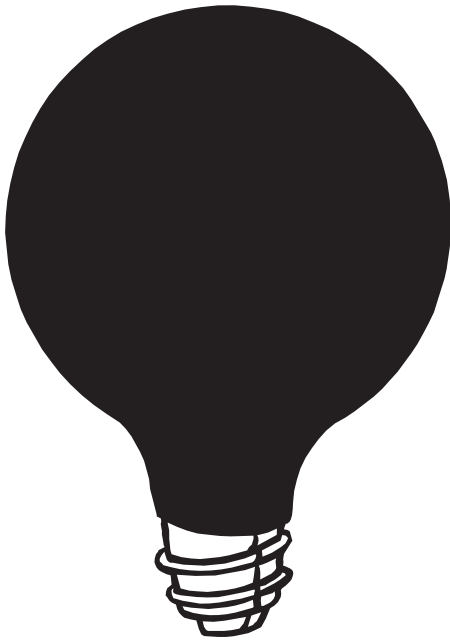
- FORK
- SPOON
- VALVES
- PANS
- CUT
- COOL
- PAIN
- OCEAN
- MESS
- RISK
- PINE

- JUNK
- MANNA
- NOURISHMENT
- NUTRIMENT
- PABULUM
- POTABLE
- VIANDS
- VICTUALS
- YOLK
- CHEWS
- STOMACH

- TONGUE
- TEETH
- MOUTH
- TASTE
- KITCHEN
- MEALS
- PROVENDER
- PROCESS
- ENERGY
- FULL
- TOAST

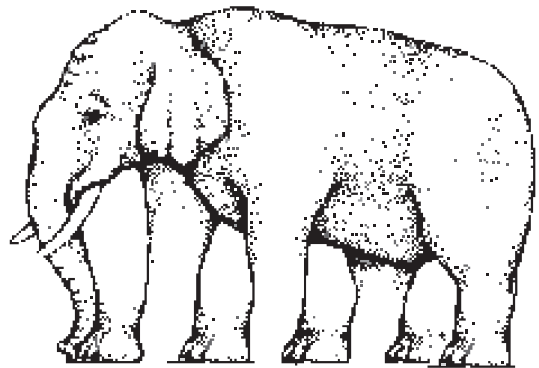
- ALIMENTATION
- BEVERAGE
- COMESTIBLE
- COOKERY
- CUISINE
- CULINARY
- DRINK
- EDIBLE
- FARE
- FASTFOOD
- GASTRONOMY

The left-over letters will spell an essential requirement for kitchens: _ _ _ _ _

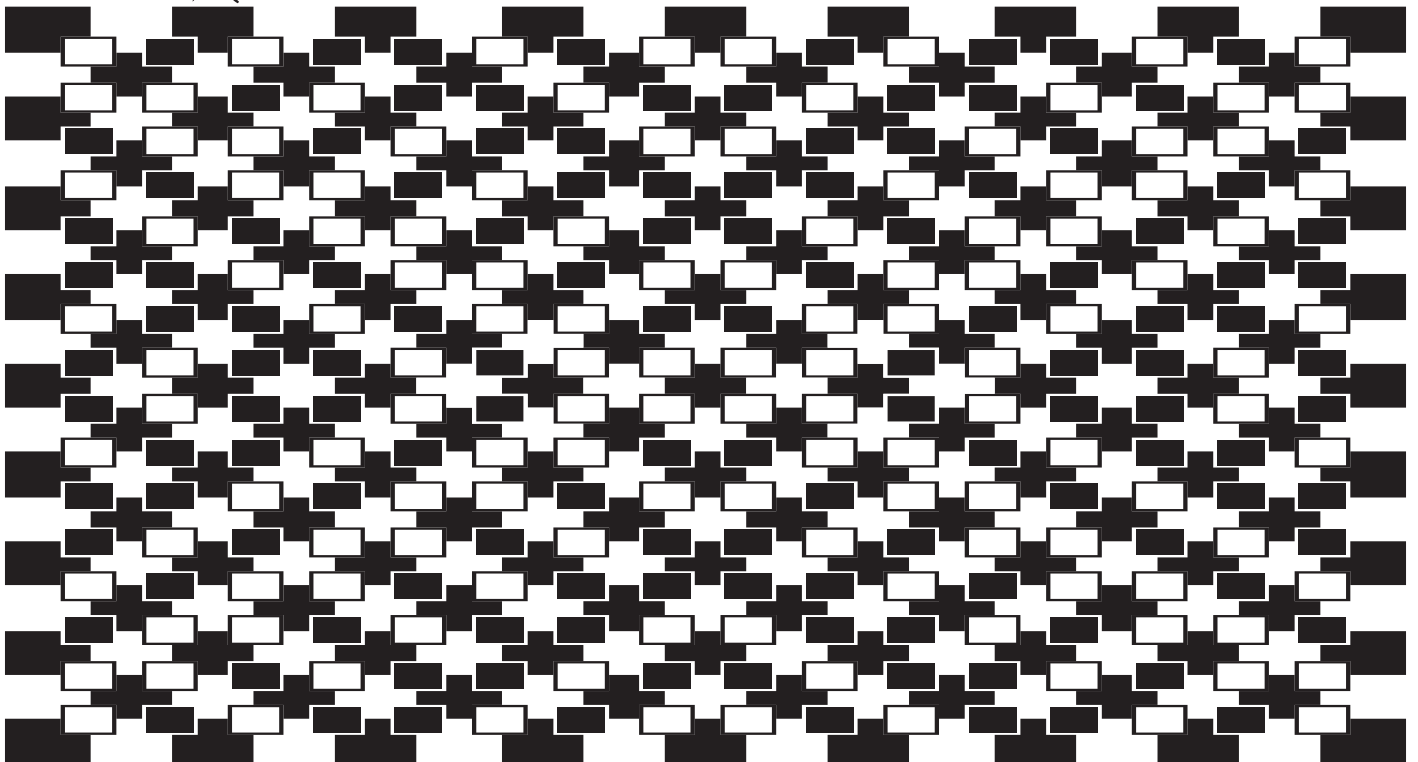


Can you see a dog in this picture?

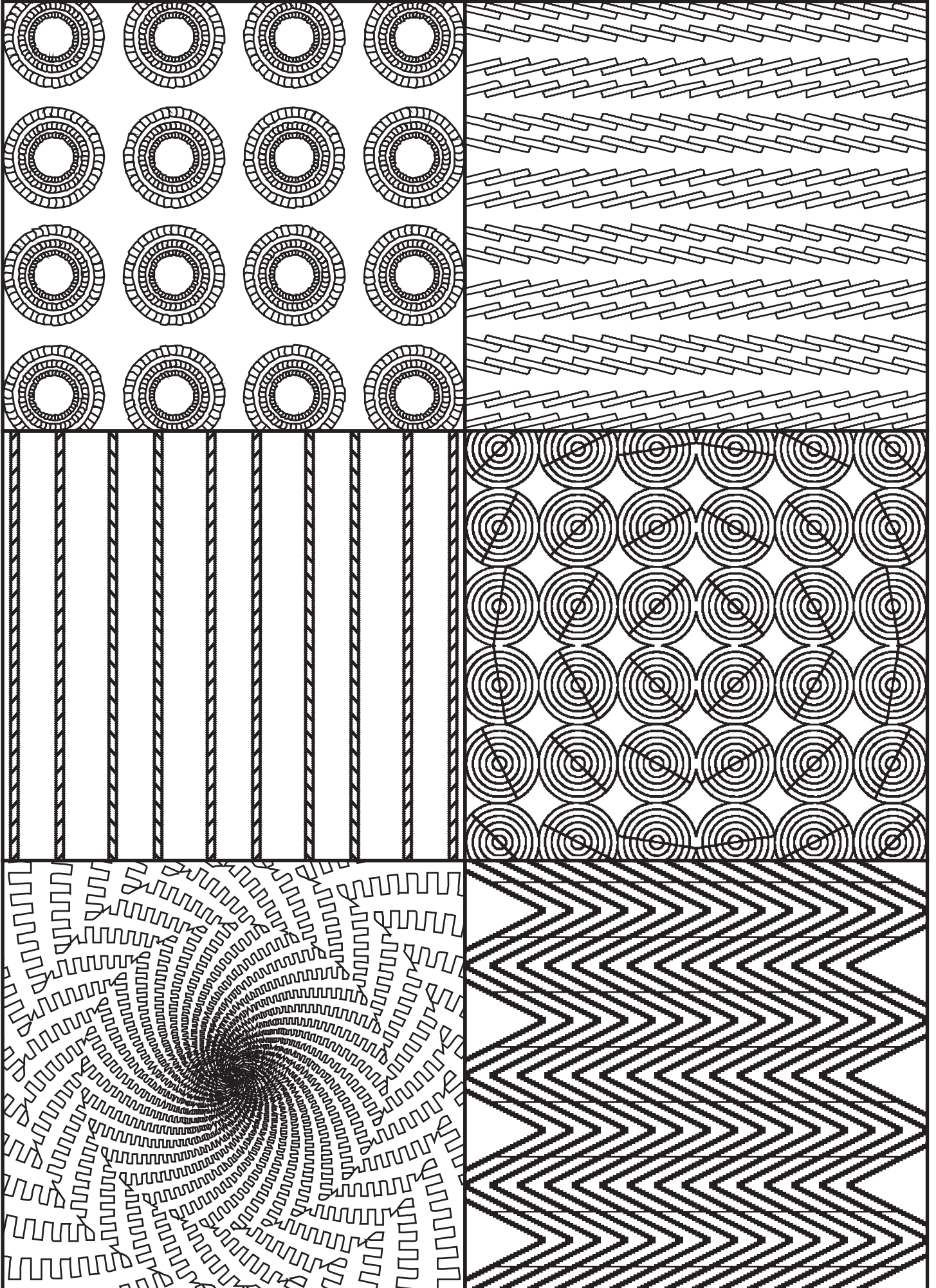
*Stare closely at this light bulb
for 20 - 25 seconds...
Then immediately stare at a white area
on a wall or a sheet of paper.
You should see a glowing light bulb!*

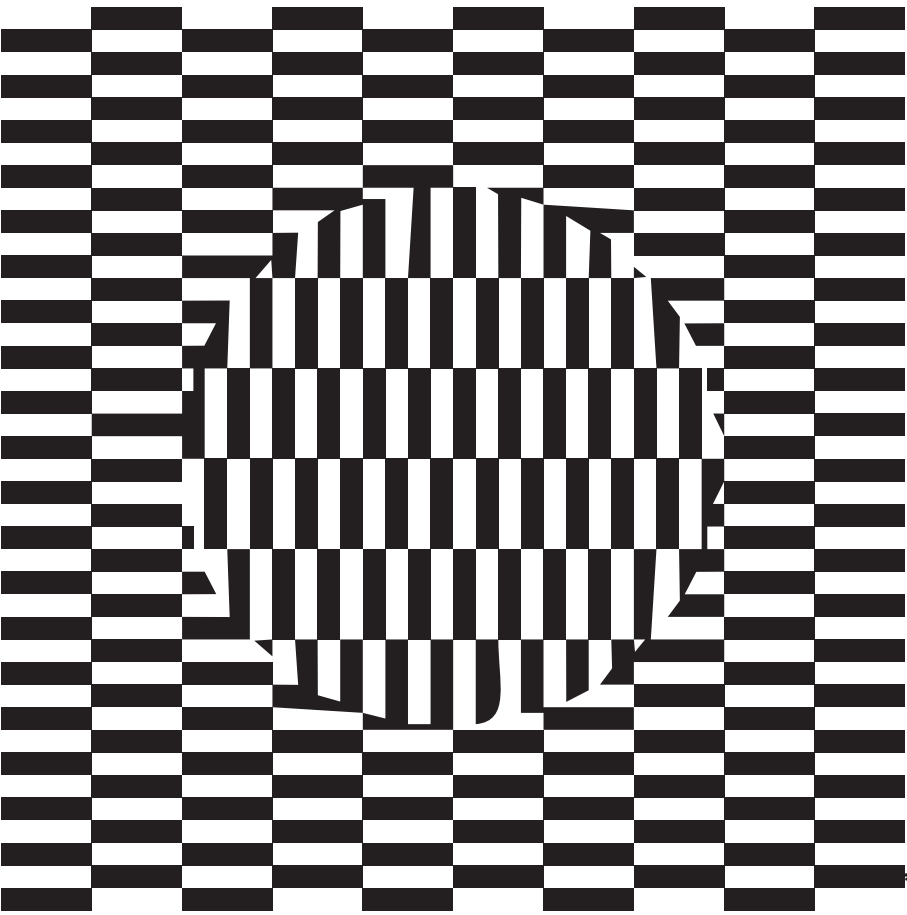
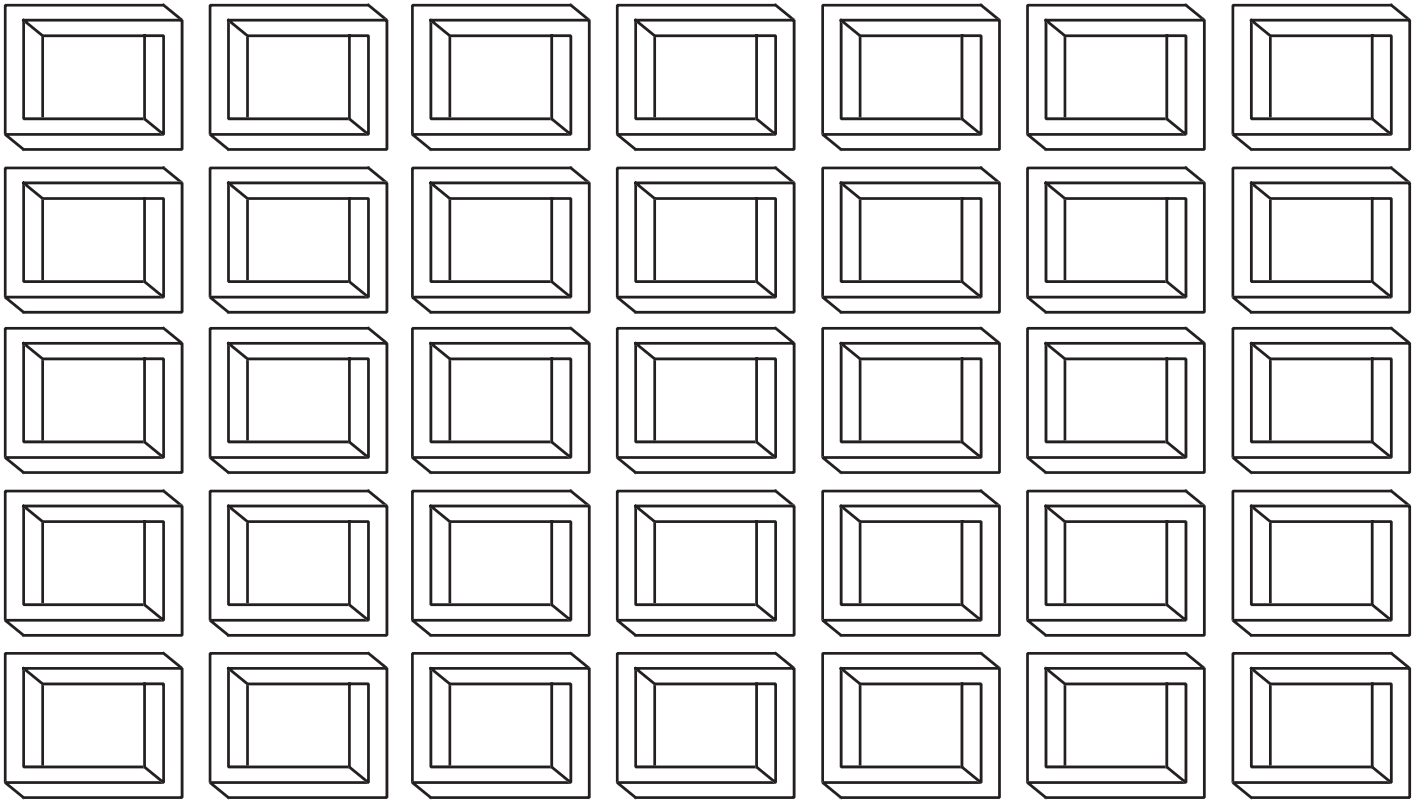


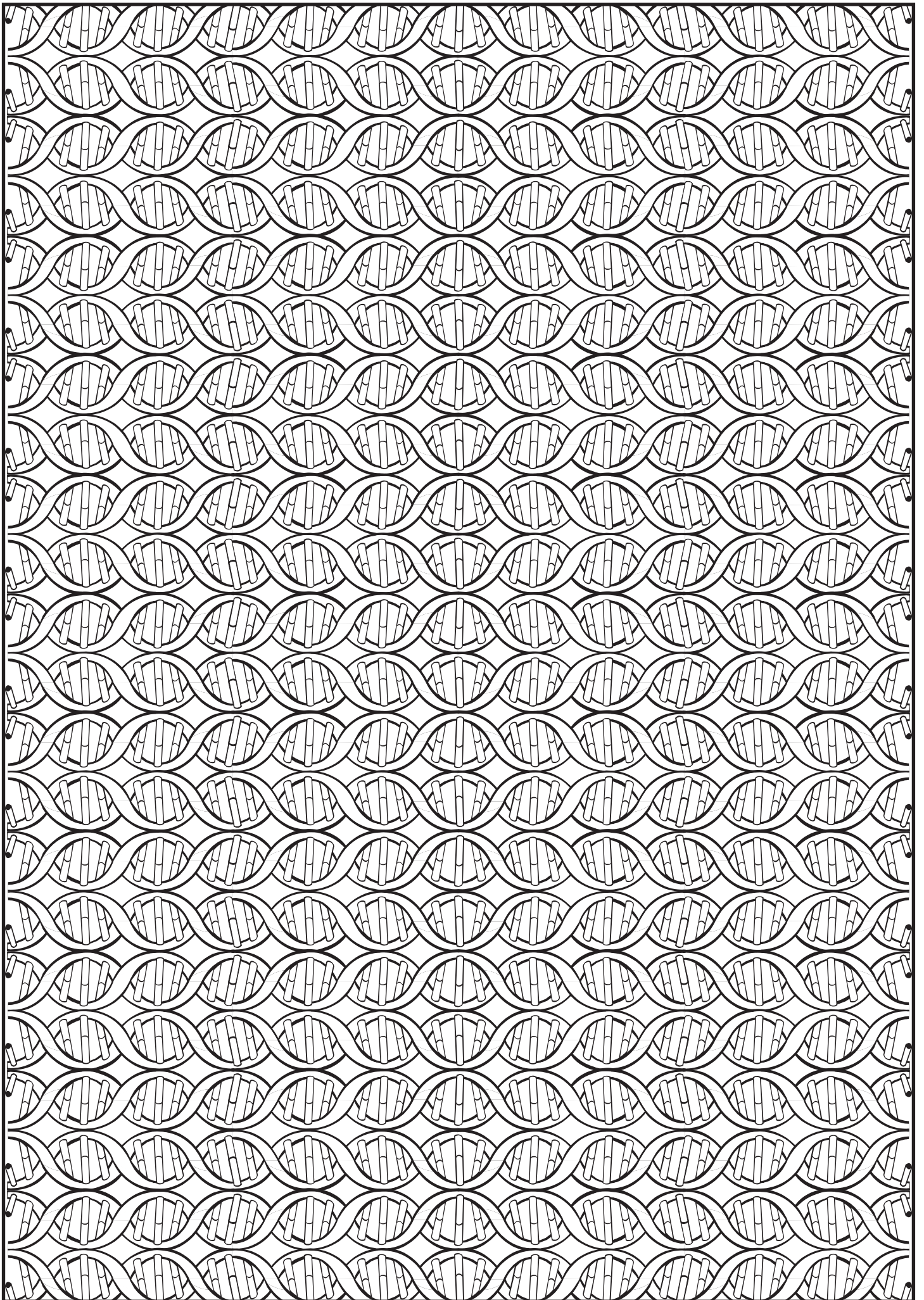
How many legs does this elephant have?



Explore these interesting designs with some colour.







Answers

Page 10

dog, horse, cat, cow, sheep, lion, tiger, elephant, zebra, wolf, fox, tortoise, bear, snake, rhinoceros, antelope, jaguar, leopard, camel, giraffe, hippopotamus, monkey, goat, deer, crocodile

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Easy Sudoku - Puzzle 1	Easy Sudoku - Puzzle 2	Easy Sudoku - Puzzle 3	Easy Sudoku - Puzzle 4	Easy Sudoku - Puzzle 5
6 9 8 3 2 1 5 7 4	9 2 8 5 6 7 4 1 3	6 1 4 9 8 5 3 7 2	3 2 8 1 4 5 7 9 6	9 8 5 7 1 2 4 6 3
4 7 5 9 8 6 3 2 1	5 6 3 1 4 8 9 2 7	9 5 7 4 2 3 6 1 8	9 5 4 7 2 6 1 8 3	6 2 1 4 8 3 7 5 9
1 3 2 7 5 4 8 9 6	1 7 4 2 3 9 6 8 5	2 3 8 6 7 1 9 4 5	1 6 7 8 3 9 4 2 5	7 3 4 5 9 6 1 8 2
8 5 9 4 1 3 7 6 2	2 8 6 4 9 3 7 5 1	5 8 1 2 4 9 7 3 6	4 9 6 3 7 1 8 5 2	1 6 3 9 4 7 5 2 8
2 4 7 8 6 5 1 3 9	4 3 1 7 5 2 8 6 9	7 2 3 1 6 8 5 9 4	2 8 1 5 6 4 3 7 9	8 5 7 2 3 1 9 4 6
3 6 1 2 7 9 4 8 5	7 9 5 6 8 1 3 4 2	4 6 9 5 3 7 8 2 1	5 7 3 9 8 2 6 1 4	2 4 9 6 5 8 3 7 1
5 1 3 6 9 7 2 4 8	3 1 9 8 2 4 5 7 6	3 4 5 7 1 6 2 8 9	8 1 9 6 5 3 2 4 7	5 7 6 3 2 9 8 1 4
9 8 4 1 3 2 6 5 7	8 5 2 9 7 6 1 3 4	8 9 2 3 5 4 1 6 7	7 3 2 4 9 8 5 6 1	4 9 8 1 6 5 2 3 7
7 2 6 5 4 8 9 1 3	6 4 7 3 1 5 2 9 8	1 7 6 8 9 2 4 5 3	6 4 5 2 1 7 9 3 8	3 1 2 8 7 4 6 9 5

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Medium Sudoku - Puzzle 1	Medium Sudoku - Puzzle 2	Medium Sudoku - Puzzle 3	Medium Sudoku - Puzzle 4	Medium Sudoku - Puzzle 5
6 4 9 1 5 2 7 8 3	7 8 1 4 2 9 6 5 3	6 5 1 4 3 9 8 2 7	6 2 7 4 5 3 1 8 9	1 9 6 8 2 3 5 7 4
1 3 7 6 8 4 5 9 2	5 9 6 7 3 1 2 8 4	2 4 8 5 7 6 1 9 3	3 9 1 2 8 7 4 6 5	7 3 2 5 9 4 8 6 1
5 8 2 7 9 3 4 1 6	3 2 4 6 8 5 1 9 7	7 3 9 8 2 1 4 5 6	5 4 8 9 6 1 2 3 7	8 4 5 6 1 7 2 9 3
3 7 4 9 2 8 6 5 1	1 3 2 5 7 6 8 4 9	3 6 5 1 8 2 9 7 4	2 6 9 8 1 4 7 5 3	2 7 4 1 5 8 6 3 9
2 5 1 4 3 6 8 7 9	8 4 5 2 9 3 7 6 1	9 2 7 6 5 4 3 1 8	1 7 4 5 3 9 8 2 6	9 6 8 3 4 2 1 5 7
9 6 8 5 7 1 3 2 4	9 6 7 1 4 8 3 2 5	1 8 4 7 9 3 2 6 5	8 3 5 6 7 2 9 1 4	3 5 1 7 6 9 4 8 2
8 1 5 3 4 9 2 6 7	6 5 8 9 1 7 4 3 2	8 1 6 9 4 5 7 3 2	4 5 2 3 9 8 6 7 1	6 8 7 4 3 1 9 2 5
4 2 6 8 1 7 9 3 5	2 1 9 3 6 4 5 7 8	5 7 2 3 1 8 6 4 9	9 1 6 7 2 5 3 4 8	5 1 9 2 7 6 3 4 8
7 9 3 2 6 5 1 4 8	4 7 3 8 5 2 9 1 6	4 9 3 2 6 7 5 8 1	7 8 3 1 4 6 5 9 2	4 2 3 9 8 5 7 1 6

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Dr. Schweitzer always spared small non-human life. A bee that had flown indoors would be captured by a drinking glass, some cardboard underneath it, and released. He would step aside rather than crush an ant, a beetle, a worm.

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Hard Sudoku - Puzzle 1	Hard Sudoku - Puzzle 2	Hard Sudoku - Puzzle 3	Hard Sudoku - Puzzle 4	Hard Sudoku - Puzzle 5
7 9 6 5 4 8 2 1 3	3 2 5 7 4 9 1 8 6	8 1 5 4 2 6 7 9 3	1 9 6 8 2 3 5 7 4	9 8 4 1 5 7 3 6 2
2 1 5 3 6 9 8 4 7	1 4 7 6 8 5 2 9 3	4 7 6 1 9 3 2 8 5	7 3 2 5 9 4 8 6 1	3 2 6 9 4 8 5 7 1
3 8 4 7 1 2 9 6 5	9 8 6 2 3 1 7 4 5	3 2 9 5 7 8 4 1 6	8 4 5 6 1 7 2 9 3	1 5 7 2 3 6 8 4 9
5 7 8 9 3 4 1 2 6	7 6 9 3 2 8 5 1 4	6 9 2 8 5 7 3 4 1	2 7 4 1 5 8 6 3 9	6 1 3 5 9 4 2 8 7
4 3 9 6 2 1 5 7 8	8 1 4 5 6 7 3 2 9	1 8 7 3 4 9 5 6 2	9 6 8 3 4 2 1 5 7	5 9 8 7 2 3 6 1 4
6 2 1 8 7 5 3 9 4	2 5 3 1 9 4 8 6 7	5 4 3 6 1 2 8 7 9	3 5 1 7 6 9 4 8 2	7 4 2 6 8 1 9 3 5
1 4 3 2 5 7 6 8 9	4 3 1 8 5 6 9 7 2	7 5 4 2 6 1 9 3 8	6 8 7 4 3 1 9 2 5	8 3 9 4 1 5 7 2 6
9 6 7 1 8 3 4 5 2	6 7 2 9 1 3 4 5 8	9 6 8 7 3 5 1 2 4	5 1 9 2 7 6 3 4 8	2 6 1 3 7 9 4 5 8
8 5 2 4 9 6 7 3 1	5 9 8 4 7 2 6 3 1	2 3 1 9 8 4 6 5 7	4 2 3 9 8 5 7 1 6	4 7 5 8 6 2 1 9 3

‘Primary Puzzles and Patterns’ provides many interesting and varied activities to develop the skills of visual and spatial perception as well as encouraging the development of problem solving and thinking skills.

Activities include:

- * Word searches on varied topics.
- * Symmetry and tessellations.
- * Optical illusions and mazes.
- * Shapes and colour.
- * The activities will encourage the students to use different thinking strategies in order to solve various questions and puzzles.

This book is suitable for the following grades in different states.

	NSW	ACT	VIC	TAS	WA	NT	SA	QLD	NZ	
K, Prep										
1										LOWER
2										
3	✓	✓	✓	✓						MIDDLE
4	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5	✓	✓	✓	✓	✓	✓	✓	✓	✓	UPPER
6					✓	✓	✓	✓	✓	

7

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