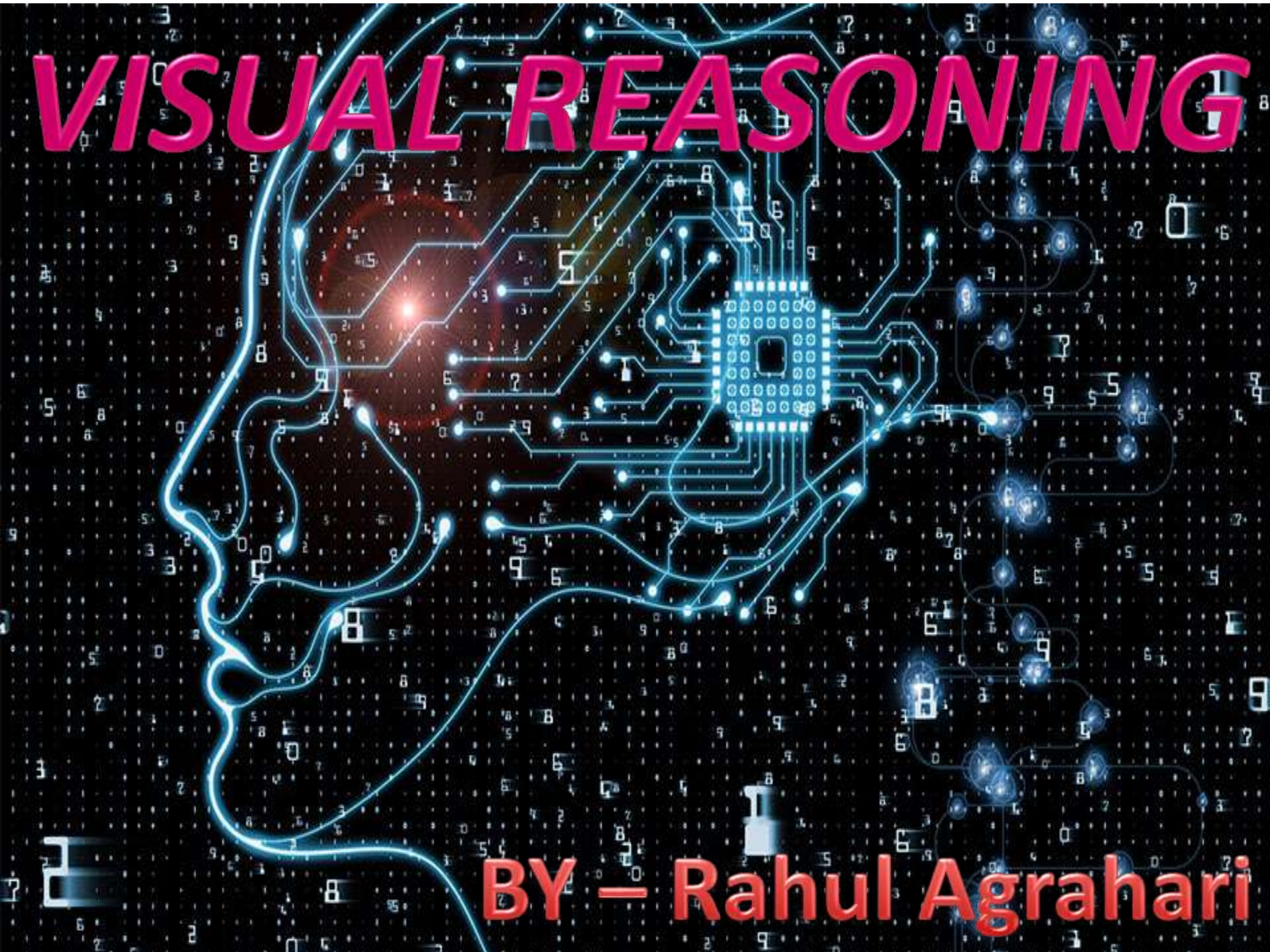

VISUAL REASONING
BY – Rahul Agrahari

VISUAL REASONING

1- SERIES

2- ANALOGY

3- COMPLETION OF FIGURES

4- EMBEDDED FIGURES

5- MIRROR IMAGES

6- WATER IMAGE

SERIES

Chapter Overview

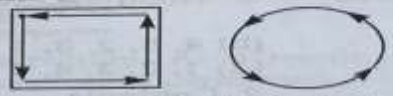
This is the most important chapter of Non-verbal reasoning. In this chapter questions a series of figures is given as problem figure and the candidates are asked to select one of the figure from the set of answer figures which will continuous the series.

Important Facts There are two type of movements

1. **Clockwise** In the direction of movement of the needle of watch.
2. Anti-clockwise In the opposite direction of movement of the needle of watch.

Clockwise Rotation

Anti-clockwise Rotation



There are two types of figures are used one is called 'Problem Figures' which deals with four figures and another is called 'Answer Figures' which also has four figures. You have to select one of the figures from the set of answer figures which will continue the same sequence.

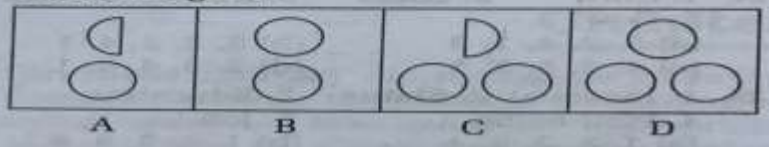
Solved Examples

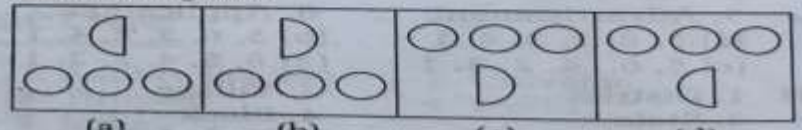
Directions (Q. 1-3) : *Each of the following questions, consists of four figures marked* A, B, C *and* D *called the problem figures followed by four other figures marked* (a), (b), (c) *and* (d) *called the answer figures. Select a figure from amongst the answer figures which will continue the same series as established by the four problem figures.*

Problem Figures

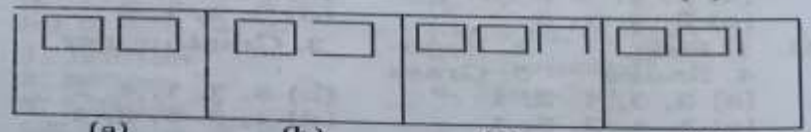
Answer Figures

1.

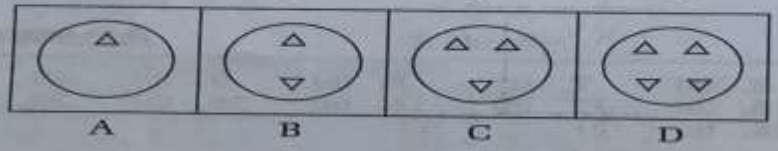


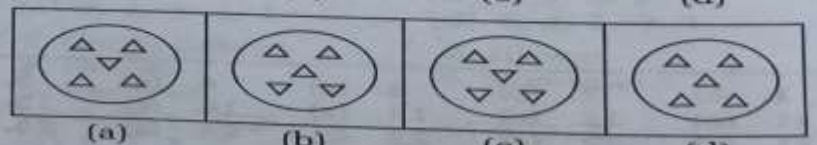


2.



3.





ANALOGY

Chapter Overview

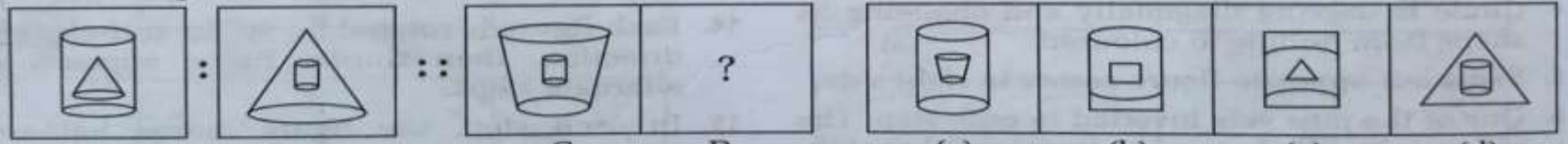
Analogy refers to the test in which we have to deduce which design fits the best in the same manner in which given pair relates. This type of analogy involves problems consisting of four figures marked A, B, C and D forming the problem set and four other figures marked (a),(b), (c) and (d) forming the answer set. The figures A and B of the problem set are related in a particular manner and a similar relationship is to be established between figure C and D by choosing a figure from the answer set would replace the question mark in figure (d).

Solved Examples

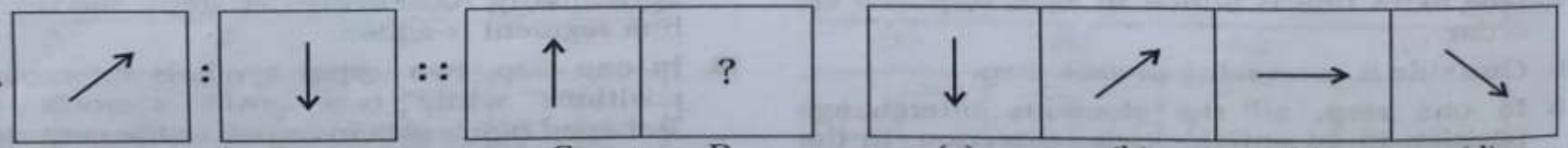
Directions (Q. 1-2) : *Figures* A *and* B *are related in a particular manner. Establish the same relationship between figures* C *and* D *by choosing a figure from amongst the four alternatives, which would replace the question mark in figure* (D).

Problem Figures **Answer Figures**

1.



2.



Solutions

1. (a) In first problem, inner design becomes outer design and outer design becomes inner design.

2. (d) Figure A rotates through 135° clockwise to form figure B.

COMPLETION OF FIGURES

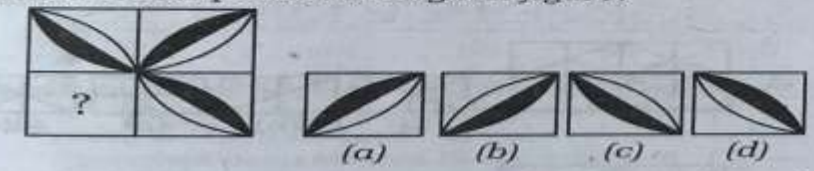
Chapter Overview

In these type of questions, a segment in a figure, generally a quarter, is left blank. This incomplete figure is followed by few choices showing the missing segment which, if fitted in the incomplete figure, completes the figure.

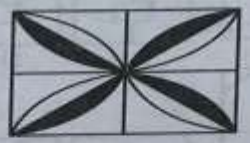
Candidates are excepted to be vigilant and be extra careful while selecting the correct option as sometimes, the alternatives have very minute differences among them.

Solved Examples

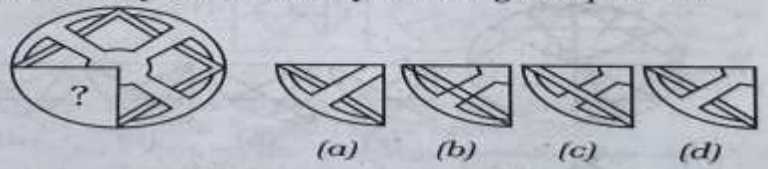
Example 1 *Which of the figures given in four alternatives completes the original figure?*



Solution (b) Clearly, option figure (b) completes the original figure which looks like as shown in the adjacent figure.



Example 2 *Which of the following figures when placed at the blank space will complete the given pattern?*

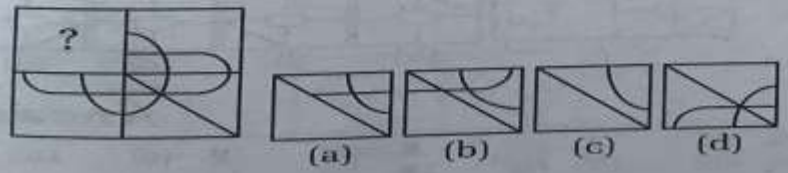


Solution (d) If the figure, as shown in the option (d), is placed in the missing portion of the original figure, it completes the original figure and after completion, the figure looks like as shown in the adjacent figure.

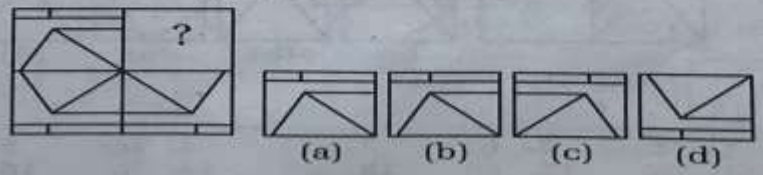
Chapter Practice

Directions (Q. 1- 18) : *In each of the following questions, a part of the figure is missing. Find out from the given options* (a), (b), (c) *and* (d) *the right figure to fit in the missing figure.*

1.



2.



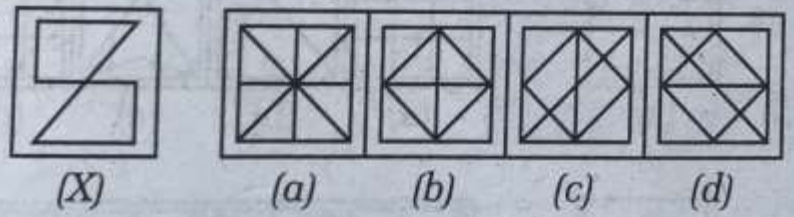
EMBEDDED FIGURES

Chapter Overview

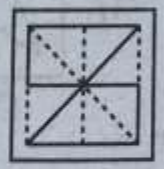
In this chapter, a figure is given as an original figure followed by four answer figures. One of the answer figures, is embedded or hidden in the original figure. Candidates are required to select the alternative that carries the correct figure which clearly shows the embedded portion in the original figures.

Solved Examples

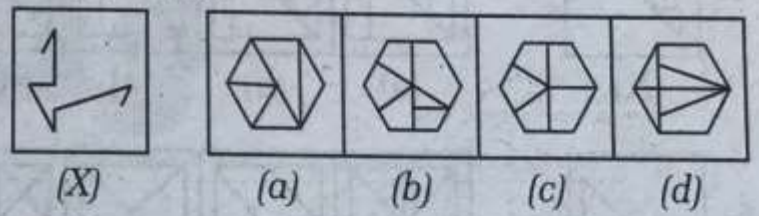
Example 1 *Choose the alternative which has figure* (X) *embedded in it.*



Solution (a) Clearly, figure (X) is embedded in alternative figure (a) and the portion it occupies in alternative figure has been shown in the adjacent figure.

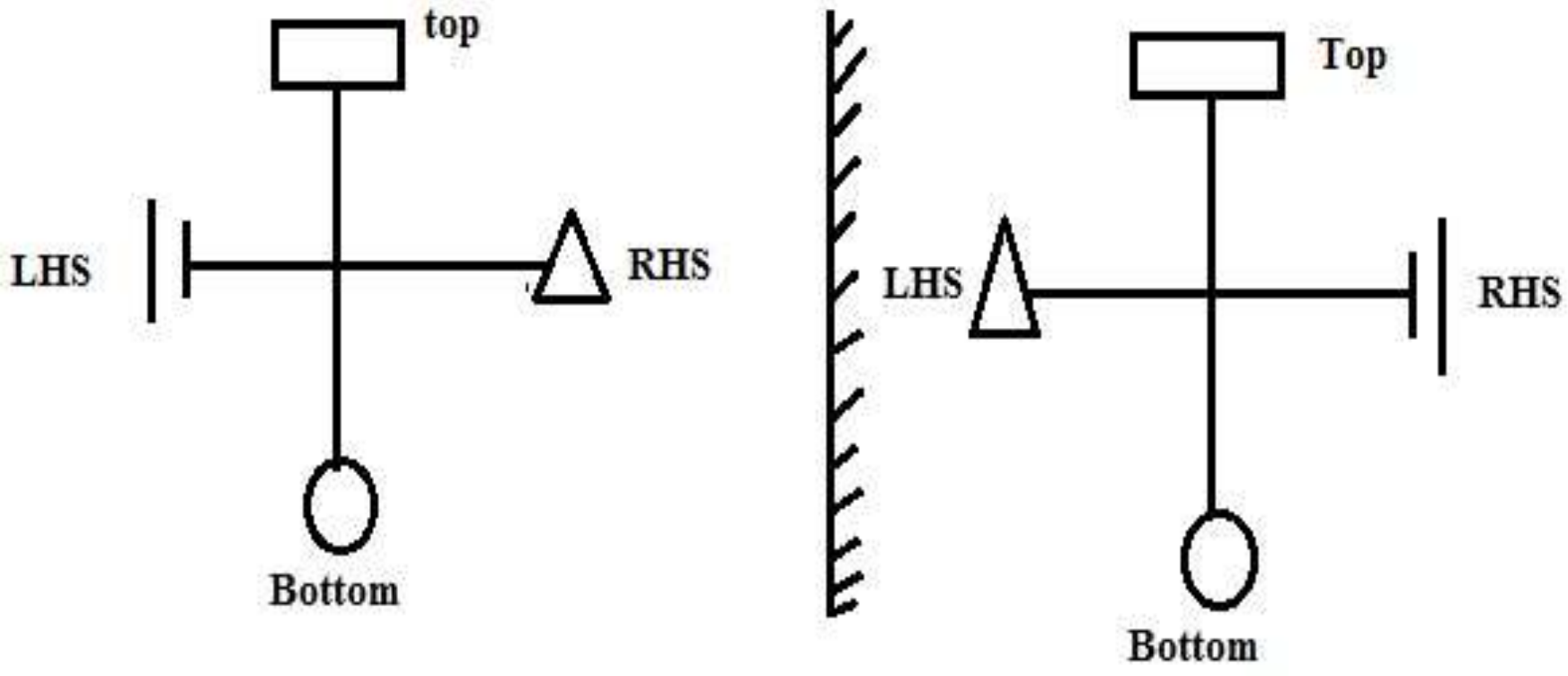


Example 2 *Figure (X) is embedded in any one of the four alternative figures. Select the alternative which contains figure (X).*



Solution (d) It is clear from the alternative figures that figure (X) is embedded in figure (d). The portion which the question figure occupies in alternative figure (d) has been shown in the adjacent figure.

MIRROR IMAGE



Real Image

Mirror

Mirror Image

Digits		Alphabet (Big)				Alphabet (Small)			
0	0	A	A	N	И	a	ɐ	n	n
1	ɩ	B	ᗺ	O	O	b	d	o	o
2	ᘔ	C	Ↄ	P	ꟼ	c	ɔ	p	q
3	Ɛ	D	ᗡ	Q	Q	d	b	q	p
4	ㄣ	E	Ǝ	R	Я	e	ɘ	r	ɹ
5	ᔭ	F	Ⅎ	S	Ƨ	f	ɟ	s	ƨ
6	ɑ	G	⅁	T	T	g	ϱ	t	ɟ
8	8	H	H	U	U	h	ɥ	u	ɯ
9	ϱ	I	I	V	V	i	i	v	v
		J	ᒐ	W	W	j	ᒐ	w	w
		K	ꓘ	X	X	k	ʞ	x	x
		L	⅃	Y	Y	l	l	y	ʏ
		M	M	Z	Z	m	ɯ	z	ƨ

MIRROR IMAGES

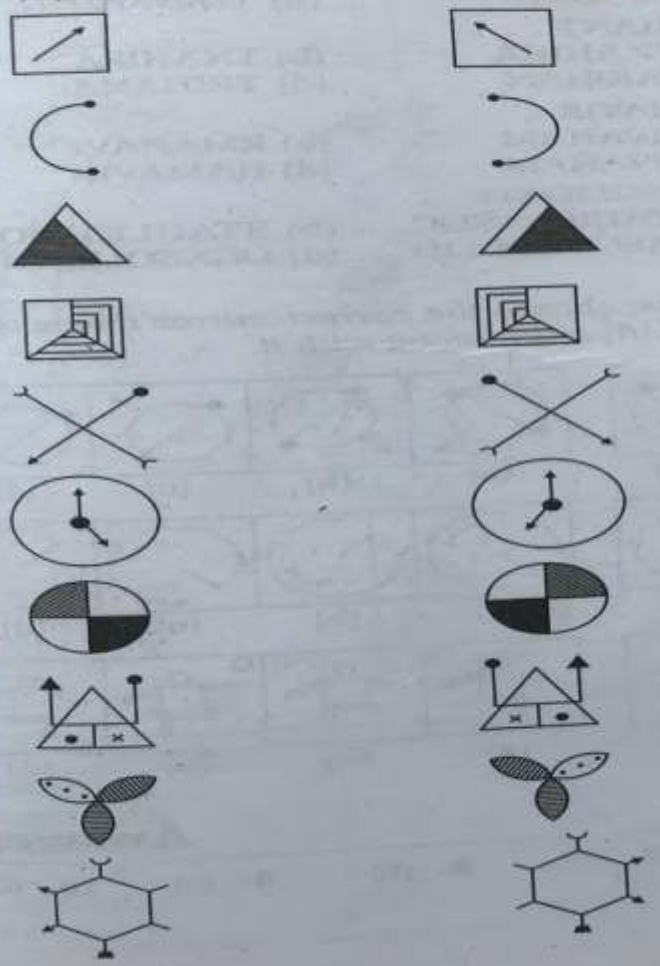
Chapter Overview

Reflection of an object into the mirror is called its mirror image. It is obtained by inverting an object laterally *ie*, towards the sides.

Example of lateral inversions of few figures and words are given below :

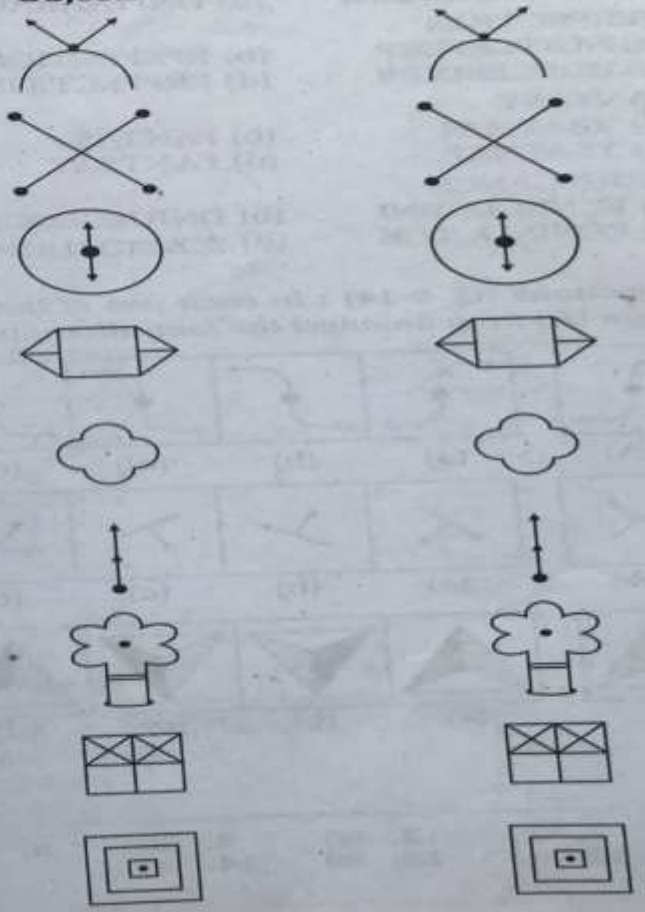
Objects having Different Mirror Images

Objects | Mirror Images

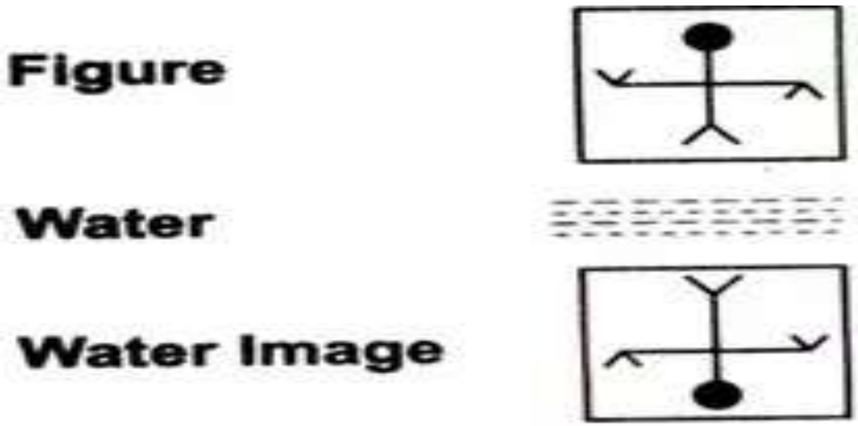


Objects having Identical Mirror Images

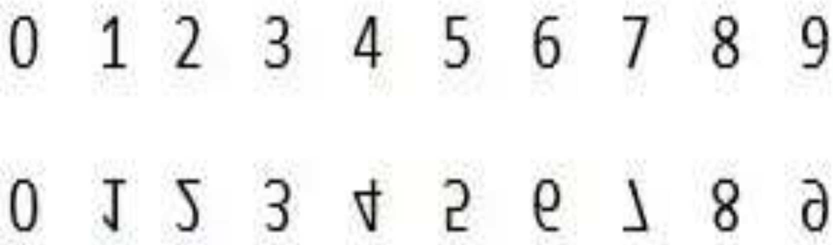
Objects | Mirror Images



WATER IMAGES



Water image of numbers



WATER IMAGES

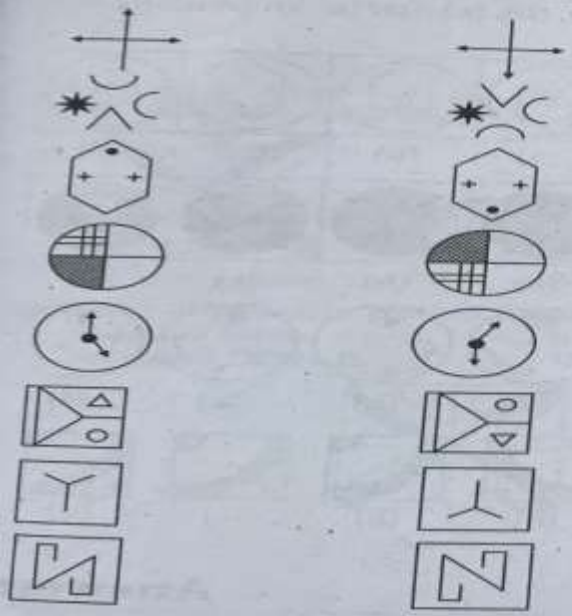
Chapter Overview

The reflection of an object into the water is called the water image of that object. It is obtained by inverting an object vertically.

Examples of formation of water images of some figures are given below :

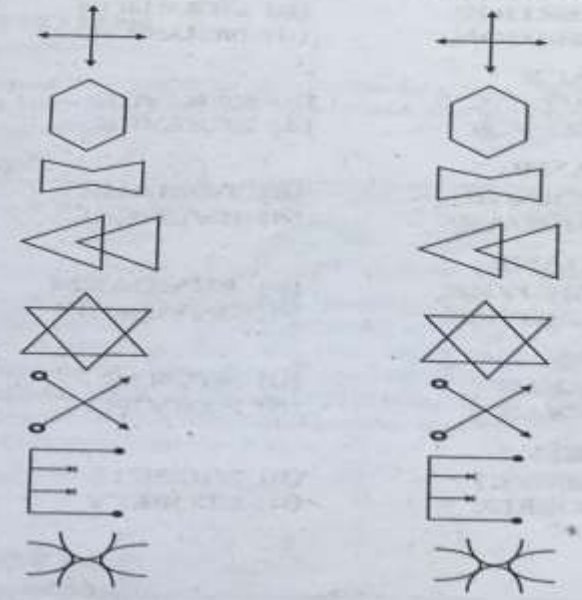
Different Water Images of Objects

Objects | Water Images



Identical Water Images of Objects

Objects | Water Images



Water Images of few Words

Words	Water Images	Words	Water Images
IMAGINE	IMAGINE	PRACTICAL	PRACTICAL
REGULAR	REGULAR	OTHERS	OTHERS
FORTUNE	FORTUNE	LANGUISH	LANGUISH
ELASTIC	ELASTIC	FERVENT	FERVENT
IDENTITY	IDENTITY	VERTICAL	VERTICAL
FURIOUS	FURIOUS	FORMATION	FORMATION

QUESTION

In a Plane there are 37 straight lines, of which 13 pass through the point A and 11 pass through the point B. Besides, no three lines pass through one point, no lines passes through both points A and B , and no two are parallel. Find the number of points of intersection of the straight lines ?

525

535

545

555

QUESTION

In how many ways can 5 different toys be packed in 3 identical boxes such that no box is empty, if any of the boxes may hold all of the toys ?

24

25

36

72

EXPLANATION

The toys are different; The boxes are identical.
If none of the boxes is to remain empty, then we can pack the toys in one of the following ways:
Case i. 2, 2, 1
Case ii. 3, 1, 1

Therefore, total number of ways of achieving the 2, 2, 1 option is: $({}^{5}C_{2} \times {}^{3}C_{2} \times {}^{1}C_{1})/2 = 15$

Number of ways of getting the 3, 1, 1 option is ${}^{5}C_{3} = 10$ ways.

TOTAL = 15 + 10 = 25

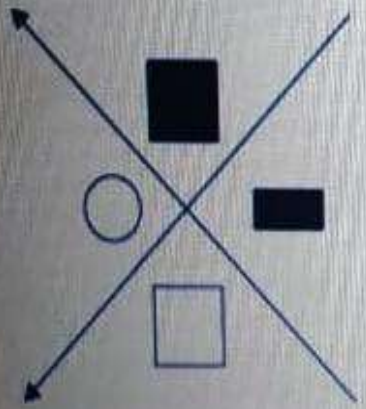
Q - 15

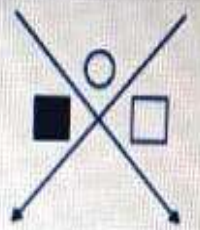
Report Error

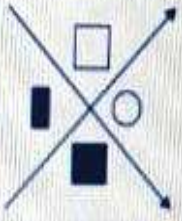
Multi Choice Type Question

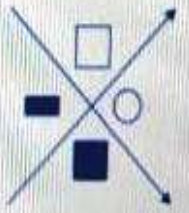
Marks : 1 Negative Marks : 0

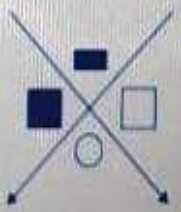
Which of the 4 figures presented (A, B, C, D) is a rotation of the first?









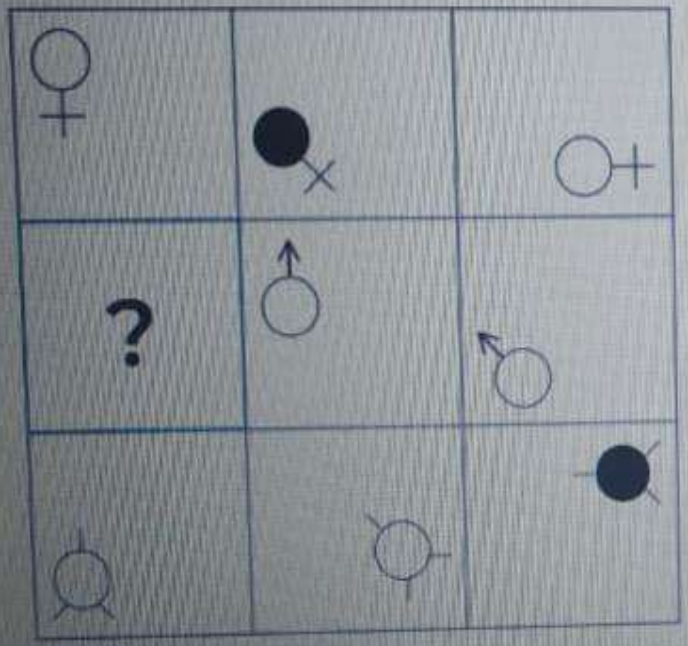


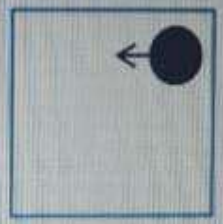
Q - 12

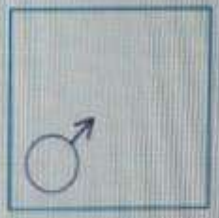
Report Error

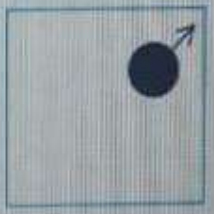
Multi Choice Type Question **Marks : 1 Negative Marks : 0**

What replaces the question mark ?









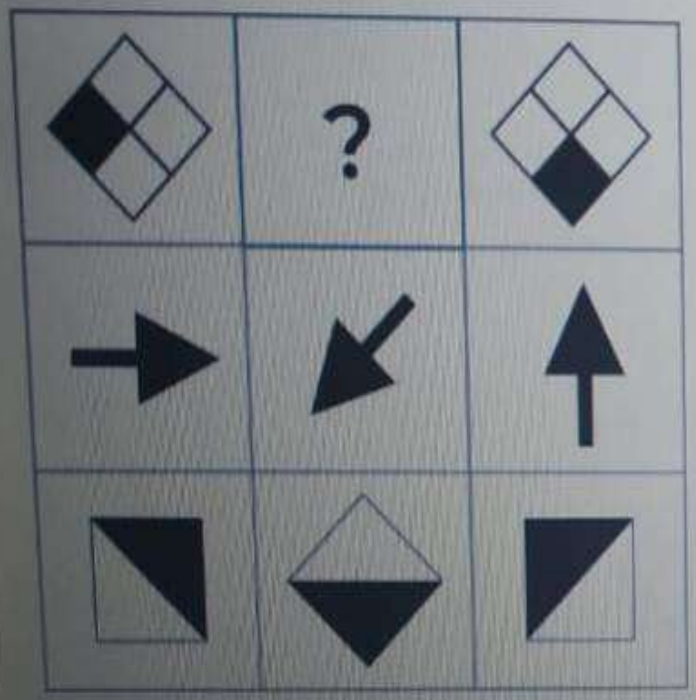
Q - 20

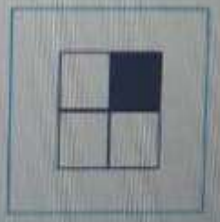
Report Error

Multi Choice Type Question

Marks : 1 Negative Marks : 0

What replaces the question mark ?



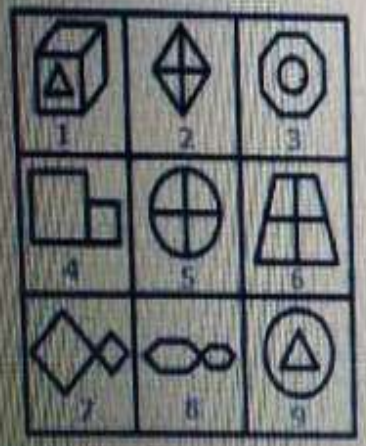


Q - 23

Report Error

Multi Choice Type Question **Marks : 1 Negative Marks : 0**

In each of the following questions, group the given figures into three classes using each figure only once.



- 1,3,9 ; 2,5,6 ; 4,7,8
- 1,3,9 ; 2,7,8 ; 4,5,6
- 1,2,4 ; 3,5,7 ; 6,8,9
- 1,3,6 ; 2,4,8 ; 5,7,9

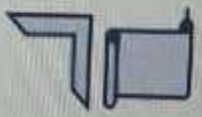
Q - 24

Report Error

Multi Choice Type Question

Marks : 1 Negative Marks : 0

Which of the following boxes should replace the question mark (?) to complete the pattern?



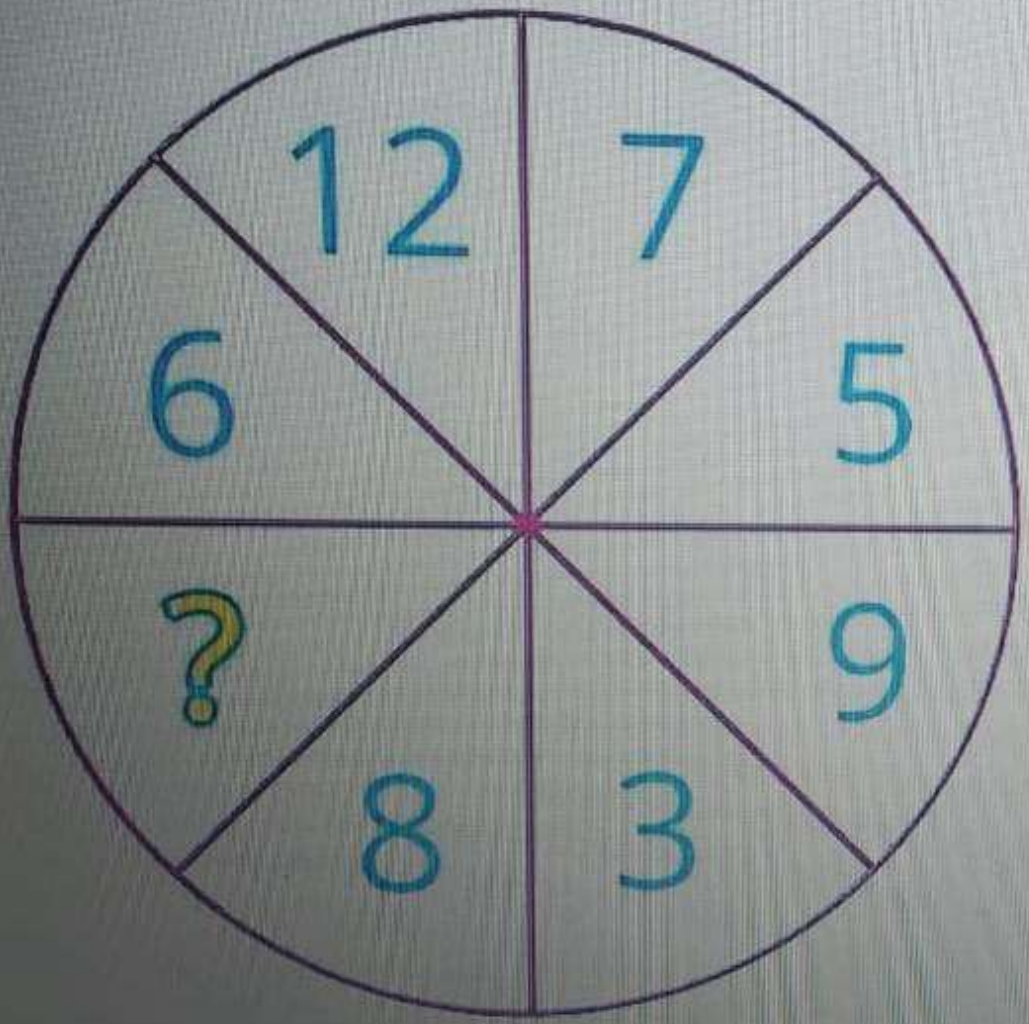
Q - 26

Report Error

Multi Choice Type Question

Marks : 1 Negative Marks : 0

Which number will occupy in the below figure ?



- 4
- 10
- 11
- 13


ThankYou!