

# Capgemini Questions on Game based Aptitude Test

## Capgemini Questions on Game based Aptitude Test

Capgemini has changed its hiring pattern and its new section game based Aptitude Test has 4 Aptitude based games to be played, these games are randomly selected from 24 games present in the system. The following are some Games asked in Capgemini test previously

- ✓ Deductive Logical Thinking(Geo-Sudo)
- ✓ Inductive-logical Thinking
- ✓ Grid Challenge
- ✓ Motion Challenge
- ✓ Switch Challenge
- ✓ Digit Challenge

There are 18 more such games in Capgemini Game Based Aptitude Test.

Game	Type of Questions	Duration
Deductive-logical Thinking (GeoSudo Challenge)	Find a missing Symbol based in a 4×4 or 5×5 grid based on Geometrical Sudoku	6 mins
Inductive-logical Reasoning (Spacio Challenge)	Visual reasoning based questions where you're supposed to find pair of figures that follow the same rule as given by a pair in question	6 mins
Grid Challenge	Ability to focus and multi task is tested. Following needs to be done simultaneously:	6 mins (not 9 mins)
	1. Checking if two grid are identical 2. Remembering position of coordinates in a grid	
Motion Challenge	Your ability to plan ahead is measured.	6 mins
	Has puzzles, where you've to find path between two points in the maze, in fewer steps as possible.	
Switch Challenge	Sequence of Geometrical Shapes, go through a switch containing code. This code changes the order of shapes, you're supposed find the correct	6 mins



	code as per input-output	
Digit Challenge	A mathematical Operation needs to be solved, by using a few available digits only once.	6 mins

## Switch Challenge



### Rules to Solve

**Problem Statement:** A series of Geometrical shapes are given, they run through a switch containing code. Based on the code, the positional output of these geometrical shapes change, **you're supposed to predict which code was used.**

### Marking:

- Everytime you solve a switch correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –



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- We are testing users, visual reasoning, decoding, problem solving skills
- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, Aviation etc

### Marking Scheme

- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level})$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$

## Solving Grid Challenge

**Problem Statement**

• Put values of each shape in Output

Red Square = 1   Yellow Triangle = 2   Blue Cross = 3   Green Circle = 4

**Assign Values**

1   2   3   4

• Assign each shape a number in input

Red Square = 1   Yellow Triangle = 2   Blue Cross = 3   Green Circle = 4

1   2   3   4

3   2   4   1

Correct Answer = 3241

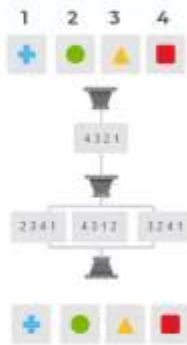


## Solving Grid Challenge 2

Problem Statement



Assign Values



Get Intermediator Geometry



Assign Values (Again) based on latest output

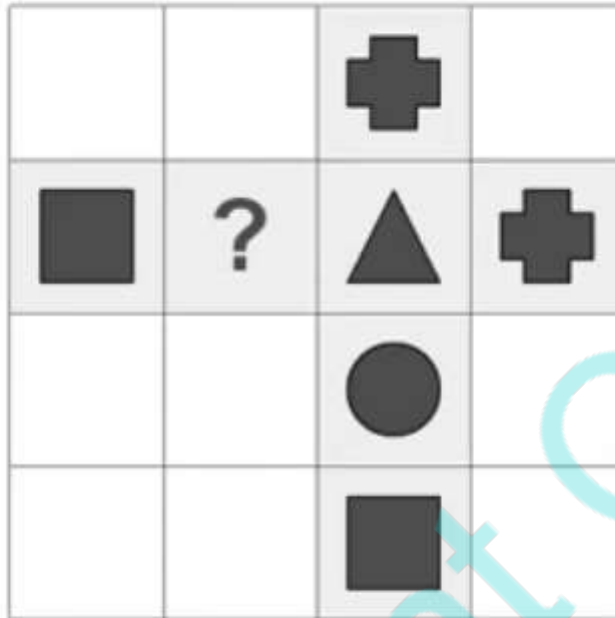


Put values of each shape in Output



## Deductive Logical Thinking (Geo-Sudo Challenge)

Please choose the correct answer option



### Rules to Solve

**Problem Statement:** You're given a  $4 \times 4$  or  $5 \times 5$  or  $6 \times 6$  grid. You're supposed to find the missing value based on some rules

### Decoding Rules

- One geometrical shape can only occur once, in any row or any column

### Marking:

- Everytime you solve a problem correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
- We are testing users, visual reasoning, decoding, problem solving skills



- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, HR, Software etc

### Marking Scheme

- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level})$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$

## Geo Sudo Challenge

**Problem Statement**

■	▲	?	
			■
			+
	●		▲

<-Options

▲	+	■	●
---	---	---	---

**Rows/Col for explanation**

	C1	C2	C3	C4
R1	■	▲	?	
R2				■
R3				+
R4		●		▲

- Position of ? is in Col - 3, Row - 1
- Row 1 already has ■ ▲ So, only options for ? are : ● +
- If you solve whole Col-4, you will get ● in (R1, C4)
- Thus, there ? value will be : +

	C1	C2	C3	C4
R1	■	▲	+	●
R2				■
R3				+



## Geo Sudo Challenge 2

**Note: Baby sitting steps skipped**  
Don't see solution, try to solve it yourself first

■ (Green) = New change    
 ■ (Grey) = Previous change

	C1	C2	C3	C4	C5
R1	★		+		●
R2		●			
R3					★
R4		+			
R5	●		?	■	
	●	▲	★	■	+

	C1	C2	C3	C4	C5
R1	★	■	+	▲	●
R2		●			
R3					★
R4		+			
R5	●		?	■	
	●	▲	★	■	+

	C1	C2	C3	C4	C5
R1	★	■	+	▲	●
R2		●			
R3					★
R4		+			
R5	●		?	■	
	●	▲	★	■	+

	C1	C2	C3	C4	C5
R1	★	■	+	▲	●
R2		●			
R3		▲			★
R4					
R5	●		?	■	
	●	▲	★	■	+

	C1	C2	C3	C4	C5
R1	★	■	+	▲	●
R2		●			
R3		▲			★
R4					
R5	●		?	■	
	●	▲	★	■	+

? = ▲

## Digit Challenge

█

X

█

+

█

= 20

1	2	3
4	5	6
7	8	9
🗑️		





## Rules to Solve

**Problem Statement:** You're giving a mathematical statement and you need to create a correct combination of digits, to make LHS = RHS. Note : One Digit may only be used once, in some cases the all the digits may not be available.

## Marking:

- Everytime you solve a problem correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
- We are testing users, visual reasoning, decoding, problem solving skills
- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, HR, Software etc

## Marking Scheme

- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level})$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$

**Digit Challenge**

**Note: There can be multiple solutions**  
First we will try to solve it incorrectly

$\square \times \square + \square = 20$

- $2 \times 9 + 2 = 20$  would be incorrect (We can only use any digit only once)
- $7 \times 2 + 6 = 20$
- $3 \times 4 + 8 = 20$
- $6 \times 2 + 8 = 20$
- many others.....

**Note: Do not look at the solution below, solve on your own**  
Level 3 Problem !!!

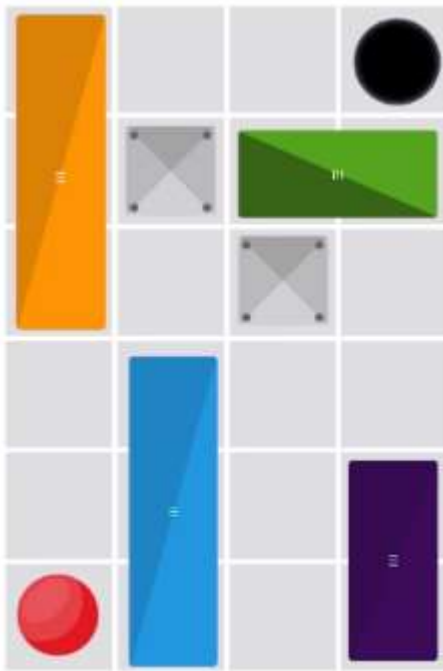
$\square / \square \times \square = 6$

- As you can see some digits are unavailable, viz. 3, 5, 8
- Division and multiplication have same priority, so you should solve left to right
- That is division will be done first and then multiplication
- There may multiple solutions to this question, you must solve it in 15 seconds ideally
- Below solution is hidden so you solve it on your own





## Motion Challenge



### Rules to Solve

**Problem Statement:** You're a Jim, you love to solve puzzles, your challenge is to put the red ball into the hole, but hey, there are obstacles, some are plastic obstacles that you can move, some are hard rocks, you can't move them. Try to do this in minimum number of steps to earn candy.

### Marking:

- **Note** – You can move plastic blocks, over the black whole
- Everytime you solve a maze correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
- We are testing users, visual reasoning, decoding, problem solving skills
- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, HR, Software etc

### Marking Scheme

- Level Rewards =  $(\text{Current-Level} + X)^2 / (\text{Time taken at Level})$
- $X = (\text{Min possible moves}) / (\text{Moves taken by candidate})$
- Total Rewards =  $\Sigma$  (Rewards at each level)



## Motion Challenge

**Note:** There may be multiple solutions

Your job is to find, solution with min number of moves,  
check formula for calculation



Step 1 - Blue block up



Step 2 - Purple block up  
Step 3 - Purple block left



Step 4 - Green block up  
Step 5 - Green block left



Step 6 - Ball right



Step 6 - Ball up



## Grid Challenge



### Rules to Solve

**Problem Statement:** You're Shakuntala Devi, and you are good with memory, you will need to do 2 tasks simultaneously, you will be shown a grid with many coordinates, with one highlighted then two figures.

- You need to remember the highlighted grid position
- Simultaneously, mark if the next two shown figures are symmetrical or not
- At the end you need to mark all the highlighted grid in last slide

### Marking:

- Everytime you solve a challenge correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
- We are testing users, visual reasoning, decoding, problem solving skills
- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, HR, Software etc




## Marking Scheme

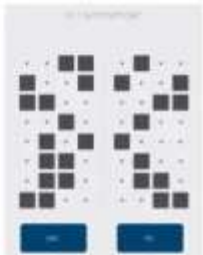
- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level}) + \text{Correct number of symmetry marked}$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$

### Grid Challenge


Note: You get 3 seconds, for remembering dot position, then it moves to symmetry




Remember the Position of Dot 1




Mark Yes, if these are symmetrical, otherwise No  
Answer: Yes



Remember the Position of Dot 2



Mark Yes, if these are symmetrical, otherwise No  
Answer: No



Mark the dots position, in the correct Order (Imp)

With each level up, the number of dots and symmetry increases



## Don't fit the rule Challenge



### Rules to Solve

**Problem Statement:** You will be show a few figures your job, is to mark image/images that don't fit the rule logically.

### Marking:

- Everytime you solve a challenge correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
- We are testing users, visual reasoning, decoding, problem solving skills
- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, HR, Software etc

### Marking Scheme

- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level})$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$



## Doesn't fit the rule



- In Image 1, 5th line is broken
- In Image 2, 4th line is broken
- In Image 3, 3th line is broken
- In Image 4, 2nd line is broken
- In Image 5, 5th line is broken
- In Image 6, 2nd line is broken

Image 5, doesn't follow the rule, as broken line are forming sequence, line broken are 5th 4th 3rd 2nd 1st then opposite order 2nd 3rd 4th 5th

However, in 5th image, rather than 1st line being broken 5th is broken



In all images, there are two images one filled with black and one empty and they don't overlap one another. While in image 3, they overlap one another, thus its odd one out



This one, is a little difficult, but, there are two things happening,

1. Center + sign comes and goes in every alternate image
2. Whenever, + sign comes back 2 other + signs in pair go

1. 2nd image : + goes away

2. 3rd image : + comes back and 2 other + signs removed from its left & right

3. 4th image : + goes away



## Follow the same rule Challenge

These two Grids follow the same rule

+	+	+
▲	■	●
+	+	+

+	+	+
●	▲	■
+	+	+

Which of these groups follow the same rule?

### Rules to Solve

**Problem Statement:** You will be show a few figures your job, is to mark other set of image/images that fit the same rules

### Marking:

- Everytime you solve a challenge correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
- We are testing users, visual reasoning, decoding, problem solving skills
- The above test is ideal for jobs that require solving complex problems :  
Engineers, Finance, Accounts, HR, Software etc

### Marking Scheme

- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level})$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$



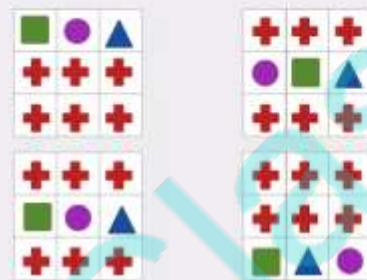


## Fits the rule Challenge

These two Grids follow the same rule



Which of these groups follow the same rule?

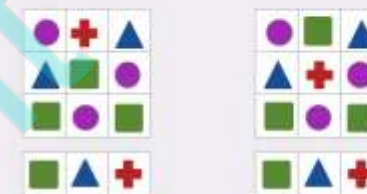


Answer: Image 2 and 3, first and last row all contain + signs

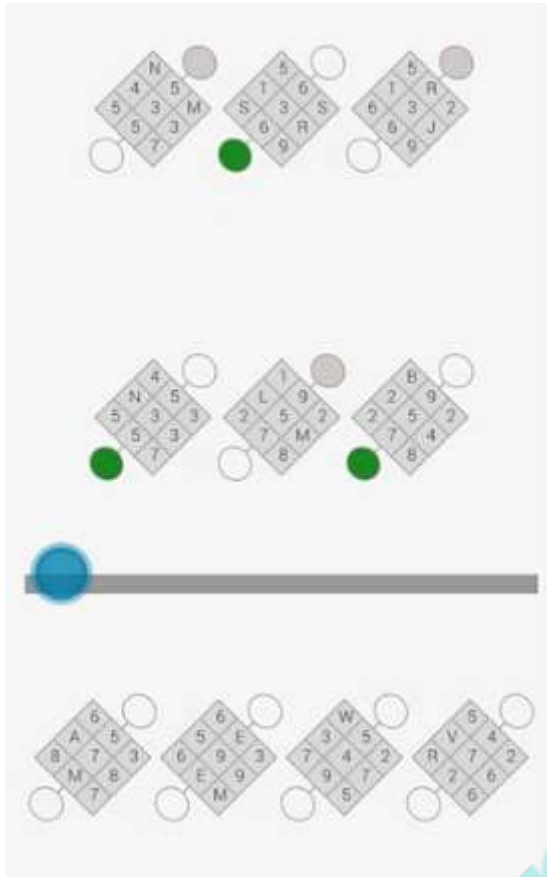
These two Grids follow the same rule



Which of these groups follow the same rule?



## Color the Grid Challenge



### Rules to Solve

#### Problem Statement:

- In the first section you will see 6 tables, having a combination of numbers, alphabets and colors
- In the second section, 4 other tables, which needs to be assigned color. Based on rules that you observed in the above 6 tables.

#### Marking:

- Everytime you solve a challenge correctly you level up.
- In each level the difficulty of the problem increases.
- To reward users, each level has a **higher marking scheme as given below** –
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Engineers, Finance, Accounts, HR, Software etc

#### Marking Scheme

- Level Rewards =  $(\text{Current-Level})^2 / (\text{Time taken at Level})$
- Total Rewards =  $\Sigma (\text{Rewards at each level})$



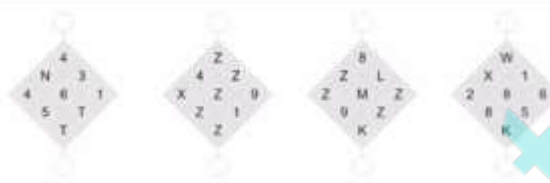
## Color the Grid Challenge <sup>(Old UI)</sup>



Note that:

All the grids which have totally, 4 Z's are of orange color (on top)

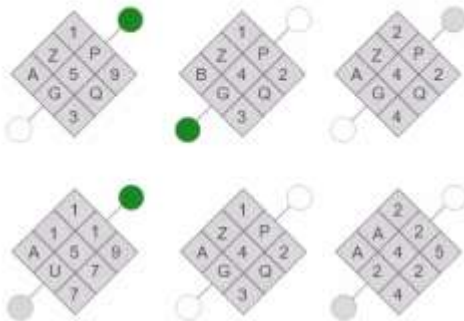
All the other grids are having blue-black color (on - bottom)



Just mark the same way, options having 4 Z's mark the top with Orange color, the one's which don't mark them with blue-black



## Color the Grid Challenge <sup>(New UI)</sup>



### Note that:

If all the grids have odd numbers then top circle is marked green. If only even then marked grey, if combination both then its kept unmarked

If all the grids have consonants then bottom circle is marked green. If only Vowels, then marked grey, if combination of both them kept unmarked

Just mark the same way, in the options



**Q1.** Identify the order of rearrangement.



**Answer:** 3241

**Explanation:**

From the given row,

Position 1 is occupied by a square

Position 2 is occupied by a triangle

Position 3 is occupied by a plus sign

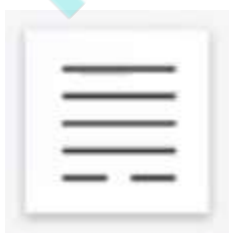
Position 4 is occupied by a circle

In the final row, the order is **plus sign, triangle, circle, square** which can be translated as **3241**.

**Q2.** Pick the one that doesn't fit the group.



**Answer:** (V<sup>th</sup> figure)

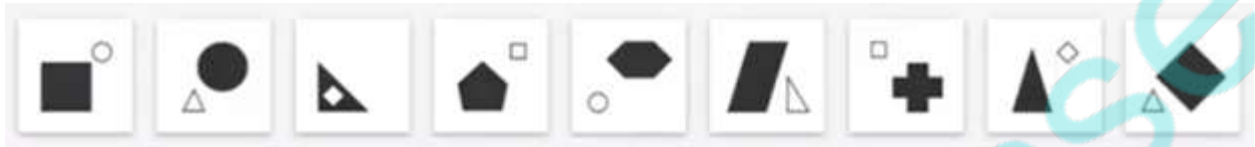


**Explanation:**

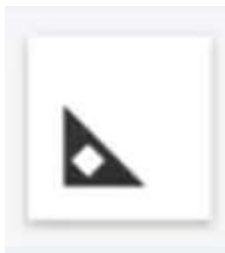


In the given series of IX figures (say I to IX), each figure contains 5 horizontal lines (say 1 to 5). Exactly one of the lines is broken in the order of 1, 2, 3, 4, 5, 4, 3, 2, 1 from figures I to IX respectively. But this order is missed in the V<sup>th</sup> figure. Hence is the odd man.

**Q3.** Pick the one that doesn't fit the group.



**Answer:** III<sup>rd</sup> figure

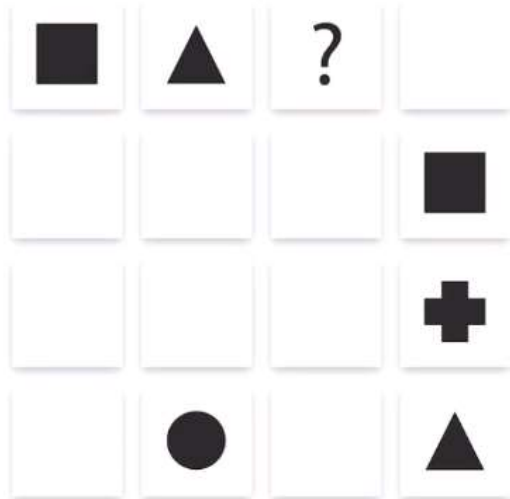


**Explanation:**

In each of the given IX figures there are two shapes, out of which, one is shaded and the other is unshaded. But only in the third figure, the two shapes overlap each other. Hence is the odd man.

**Q4.** Find the missing part.





**Answer:**



**Explanation:**

Each row/ column should have all the four shapes (triangle, plus sign, square, circle).

If we consider column 4, grid 14 should be occupied by a circle. So, the grid 13 will be occupied by a plus sign.

**Q5.** Enter the unique digits that satisfy the given equation.





X  +  = 20

1	2	3
4	5	6
7	8	9

**Answer:**  $3 \times 4 + 8 = 20$

**Q6.**

These two grids follow a rule.

+	+	+
▲	■	●
+	+	+

+	+	+
●	▲	■
+	+	+

Which two of these grids follow the same rule?

■	●	▲
+	+	+
+	+	+

+	+	+
●	■	▲
+	+	+

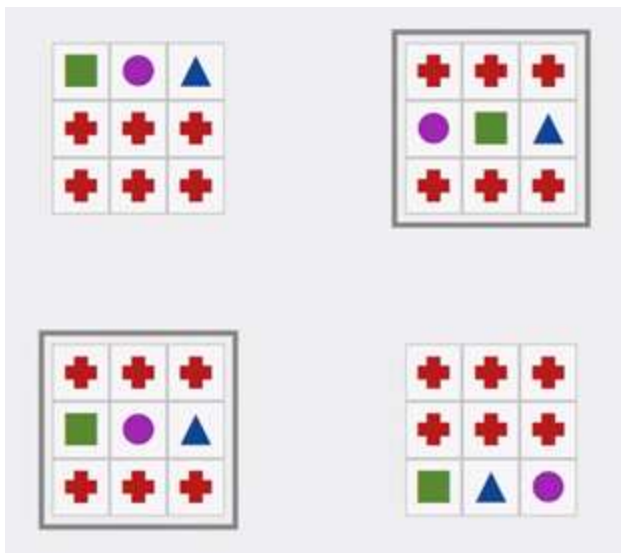
+	+	+
+	+	+
+	+	+

+	+	+
■	●	▲
+	+	+

+	+	+
+	+	+
■	▲	●

**Answer:**





**Explanation:**

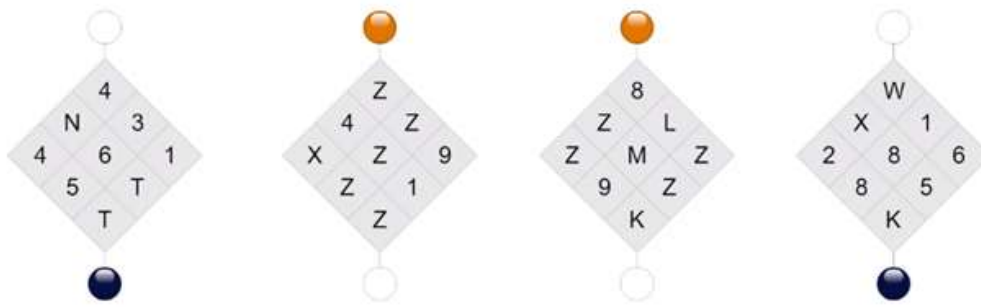
Rule followed by grids given in the question: Row 1 and Row 3 are identical.

**Q7.** Identify the pattern in which the question grids are coloured and following the same pattern colour the given grids.



**Answer:**





### Explanation:

The grids with 4 'Z's are coloured yellow and the remaining grids are coloured black.

### Q8.

**Operators**

Which operator is needed?

2 3 4 1

4 3 1 2

3 2 4 1

4 3 1 2

?

2 3 4 1    4 3 1 2    3 2 4 1

**Answer:** 3241

### Explanation:

From the given row,

Position 1 is occupied by a plus sign

Position 2 is occupied by a circle



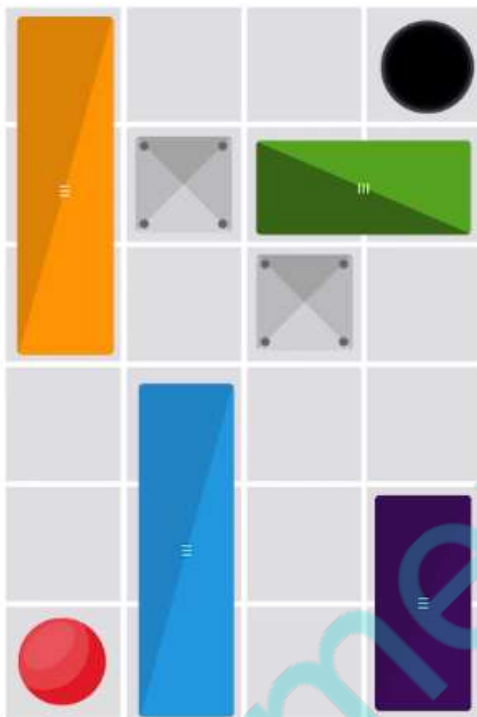
Position 3 is occupied by a triangle

Position 4 is occupied by a rhombus

After the operator 4312 the order changes as: Rhombus, Triangle, Plus sign, Circle

From this order to get the given final order of Plus sign, Triangle, Circle, Rhombus, the required operator is **3241**.

**Q9.** Move the red ball to the hole (marked black) in the given grid.



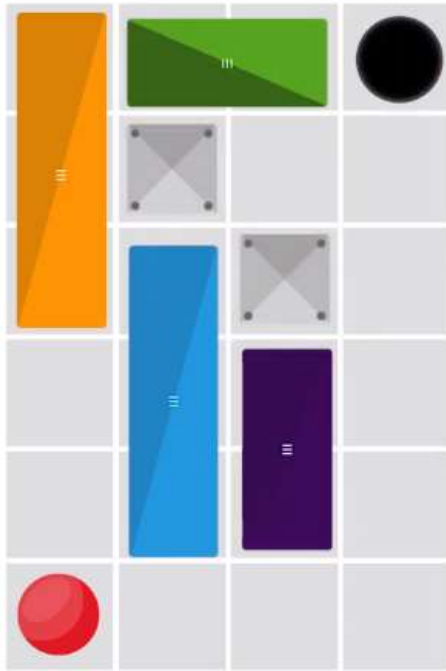
**Answer & Explanation:**

The required moves are:

- i) Blue block – 1 position upward
- ii) Purple block – 1 position leftward and 1 position upward
- iii) Green block – 1 position upward and 1 position leftward

After these movements, the grid changes as:





Now, the red ball can be taken to the destination without obstacles.

**Q10.** Enter the unique digits that satisfy the given equation.

X  +  = 30

1	2	3
4	5	6
7	8	9
<input type="text"/>		

**Answer:**  $3 \times 8 + 6 = 30$



**Q11.** Remember the order in which the dots appear on a grid. In between the grids some questions are to be answered whether the given pictures are symmetrical or not. At last the dots are to be marked as per the order.



**Q12.** Pick the one that doesn't fit the group.



**Answer:**



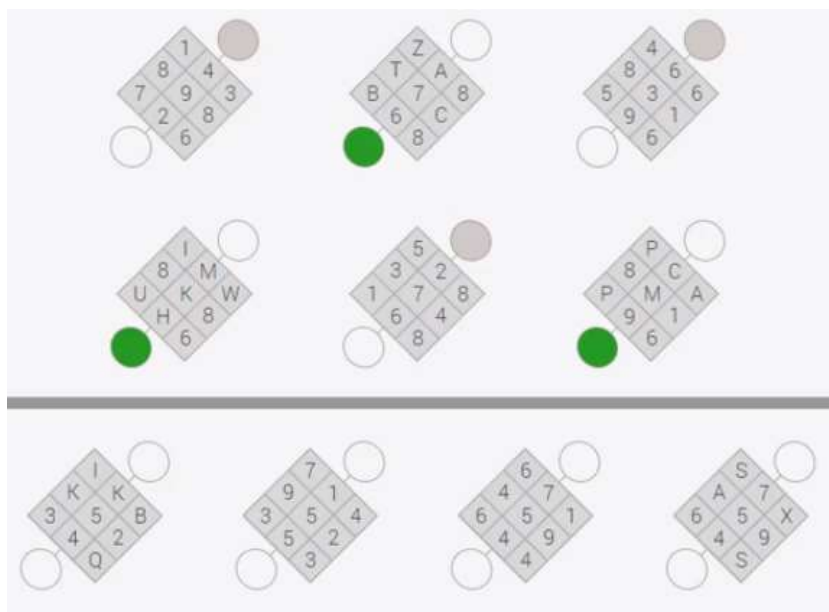
**Explanation:**

From the right end, the number of plus signs inside a box increases by 1 in each consecutive figures. But the order is missed at the fifth figure and hence is the odd one.

**Q13.** Identify the pattern in which the question grids are coloured and following the same pattern colour the given grids.



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**Answer:**



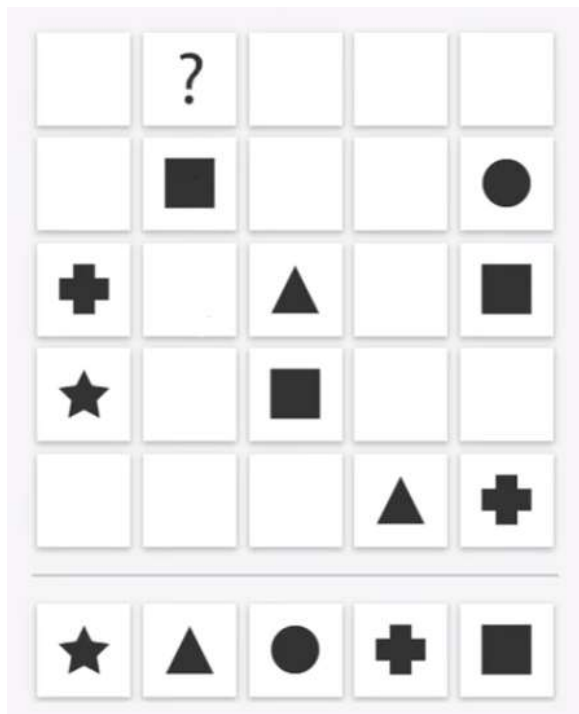
**Explanation:**

The grids with only numbers are marked grey while the grids with both numbers and alphabets are marked green.

**Q14.** Find the missing part.







**Answer:**



**Explanation:**

To find the part to be filled on grid 12, let us first consider other grids related to it.

Grid 51 – Square;

Grid 21 – Triangle;

Grid 11 – Circle;

Grid 45 – Triangle;

Grid 15 – Star;

So, grid 12 will be occupied by a triangle.

(As a triangle can't be fitted on grid 13 or 14)

**Q15.** Find the missing part.



	X		
			X
X	?		
		X	

1	2	3	4	5
X			X	
X	X	X		

**Answer:**


**Explanation:**

Each row and column should have exactly one cross mark. As the pattern already exists on the question figure, the missing part should not contain any cross marks.

