2D Shape Drawing
(7-11)

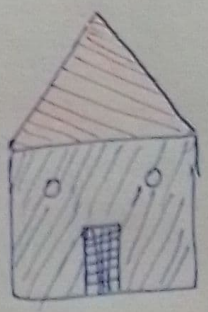
Rules

- Write step by step procedure to create a drawing.
- This step by step procedure is called an algorithm.

Algorithm (with mistakes)

1. Draw a rectangle at the end of the page
2. Draw a square with pattern  in the center of the page.
3. Draw a circle at the bottom of the squre
4. Draw a triang with its base aligned to one edge of the square - shaded as 
5. Draw a rectant with hight half of the above squre and shade 

Desired Outcome



6.) Draw two grey circles inside the square above the rectangle.

7.) Colour the circles pink.

Block Logic Puzzle

(9-13)

~ Square is divided into blocks with differat patterns.

Rules

~ Aim to fill the blocks with numbers.

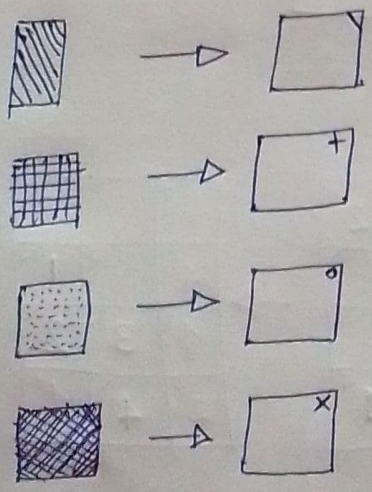
~ These numbers should count up from 1 upto the number of block with the same pattern. (for each pattern)

~ Adjacent block cannot contain same nubers

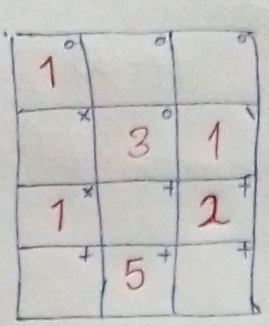
①	②	③
⑧	2	④
⑦	⑥	⑤

①-⑧ are adjacent blocks.

~ Legend

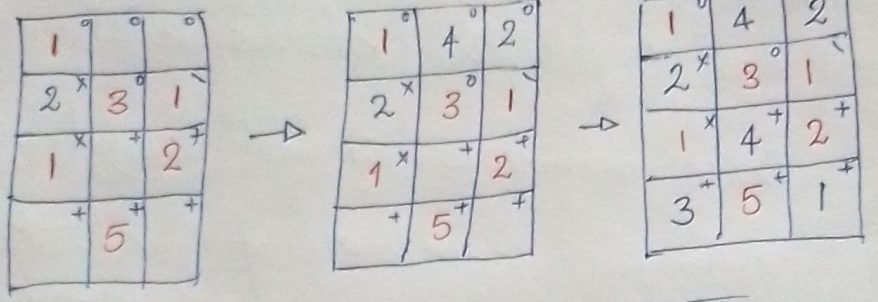


Q. Solve

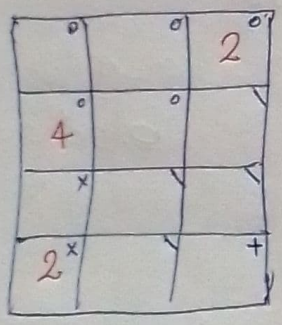


A. Solution

∘ → 4
× → 2
+ → 5
\ → 1

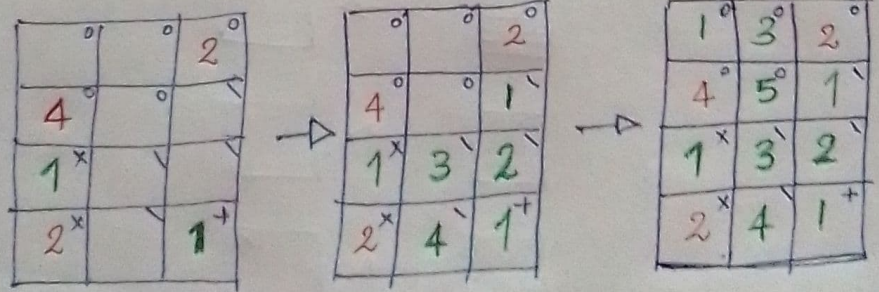


Q Solve



A. Solution

∘ → 5
× → 2
+ → 1
\ → 4



Hive Puzzle

(9-13)

- Hive with diffunt hexagonal patterns are given.

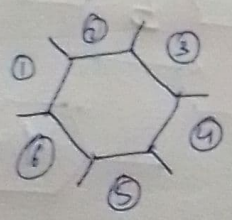
Rules

~ The hexagon must be filled with numbers.

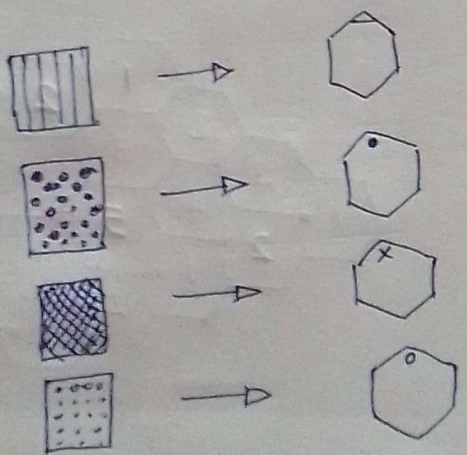
~ These numbers must ~~not~~ count up from 1 to number of hexagons with same pattern (for each pattern)

~ Adgacent hexagons cannot contain the same number.

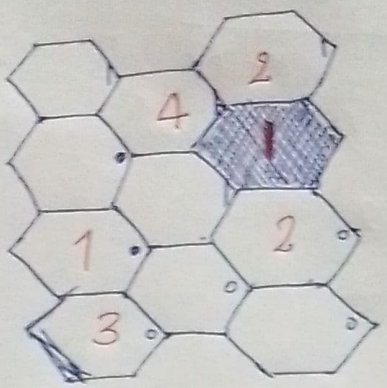
①-⑥ : are adjacent hexagons.



~ Legend

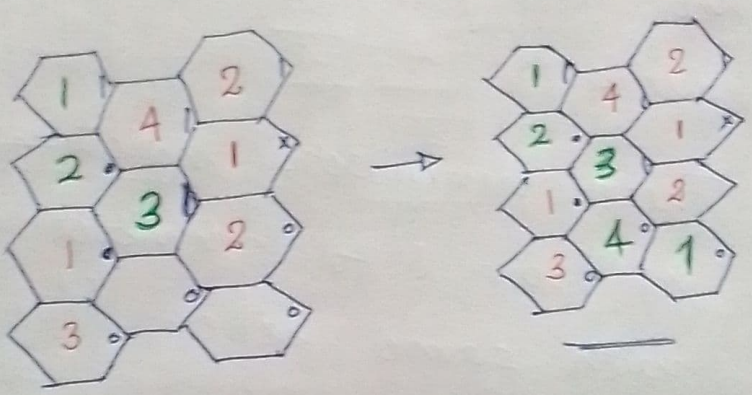


Q. Solve

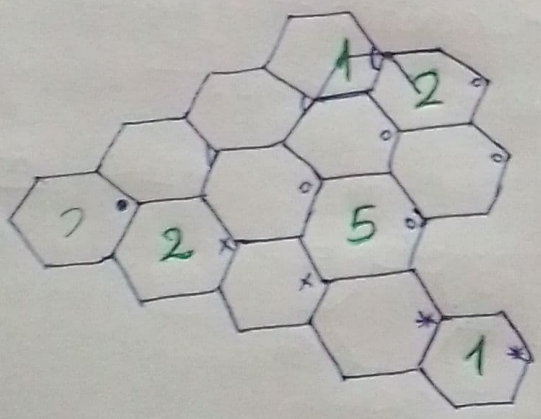


A. Solution

1 → 4
× → 1
• → 2
○ → 4

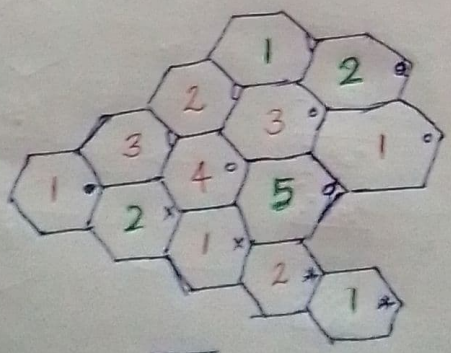


Q Solve



A. Solution

1 → 3
× → 2
• → 2
○ → 5
* → 2



Logic Numer Sequences

(9-11)

Mentor: JOVIAL

Student: Clarita

1.) 5 , 10 , 15 , 20 , —

- ~~Sa~~ Saw first two numbers
- Added 5 with the first number got the second number
- saw next two numbers (10, 15) saw and added 5 to 10 and so on...

⟹ this is an algorithm

△ Ans: 25

2.) 3 , 8 , — , 18 , —

- add 5 to the previous ~~number~~ number

3, 8, 13, 18, 23

3.) 10, 8, 6, ___, ___

- ~~add~~ take away 2 from previous number

10, 8, 6, 4, 2

4.) 40, ___, 45, 55, 50, ___, 55, ___

- add 10 & 2, then take away 5
- repeat.

40, 50 45, 55, 50, 60 55, 65

Sudoku Puzzle

(7-11)

Rules (4×4)

~~- Each sub squares must contain only the same number of sud~~

1. Fill out each sub squares from numbers 1-4.
2. Each colum & each row does not repeat any numbers, seperately.

Q1.

4			3
	3	2	
	4	3	
3			2

A1.

4	2	1	3
1	3	2	4
2	4	3	1
3	1	4	2

Q2.)

		3	
1			
			4
	2		

A2

2	4	3	1
1	3	4	2
3	1	2	4
4	2	1	3

Vector-Dot Puzzle

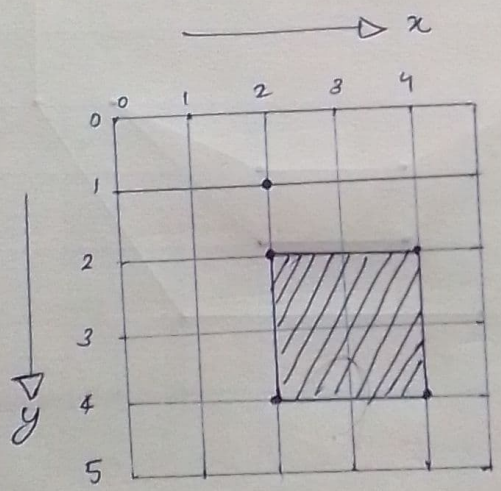
(9-13)

Rule

- ~ Plot the co-ordinates
- ~ Connect them
- ~ Fill the colours aptly. (or pattern)

Q.)  (2, 2) (4, 2) (4, 4) (2, 4)

A.)



Q.) □ (2, 1) (1, 3) (1, 6) (3, 9) (7, 9) (9, 6) (9, 3) (

(6, 3) (6, 4) (7, 4) (7, 3)

(3, 3) (3, 4) (4, 4) (4, 3)

(2, 6) (4, 8) (6, 8) (8, 6) (6, 7) (4, 7)

A.)