

# Matchstick Patterns

1. Look at the pattern of shapes made with matchsticks:

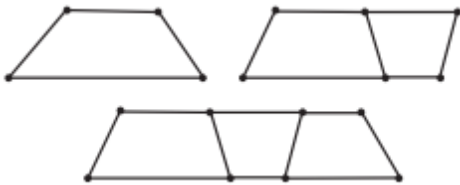


How many matchsticks will be required to make:

- a. 7 Parallelograms \_\_\_\_\_ b. 12 Parallelograms \_\_\_\_\_

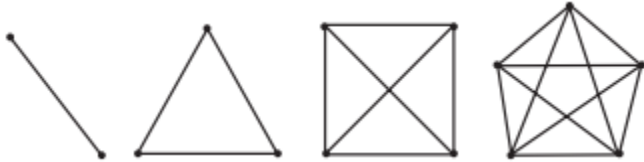
2. Observe the geometrical pattern and write the generalized statement for 'x'.

i.



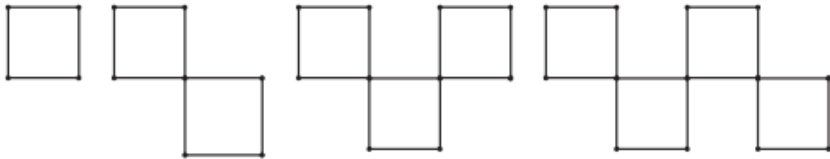
No. of Dots	4	6	8	12	n
No. of Trapezium	1	2	3		

ii.



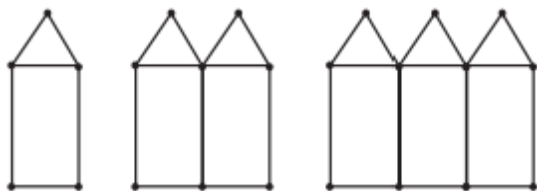
No. of Points	2	3	4	5	6	9	n
No. of lines Segments	1	3	6	10			

iii.



No. of squares	1	2	3	4	8	19	n
No. of matchsticks	4	8	12				
No. of dots	4	7	10				

3. Construct the following patterns of houses with matchsticks.



Number of houses	1	2	3	5	8
Number of matchsticks	6	11			

Write the generalized statement for this pattern.

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4. Observe the patterns given in the following numbers and find the 22nd, 36th and 45th term in each case:

a. 5, 13, 21, 29

b. 9, 16, 23, 30, 37

5. Write the generalized statement for following number series:

a. 1, 3, 5, 7, 9

b. 6, 11, 16, 21

6. Kabir is drawing a dot Rangoli. He has 11 dots in a row. How many dots will her Rangoli have for?

a. 9 rows? 

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b. 12 rows? 

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