

# **St. Andrews Scots Sr. Sec. School**

9th Avenue, I.P. Extension, Patparganj, Delhi -110092

Session: 2024-2025

**Class: IV**

**Subject: Mathematics**

**Topic: Unit 14 patterns and symmetry**

Questions to be done-

Warm up points

Ex 14 A (book)

Ex 14 B (book)

Ex 14 C (book)

Worksheet

Lady Bug activity

### Exercise 14A

1. (a) 1, 2, 3, 5, 8, 13,  $\boxed{21}$ ,  $\boxed{34}$ ,  $\boxed{55}$

Rule : Add the two previous numbers.

(b) 30, 35, 33, 38,  $\boxed{36}$ ,  $\boxed{41}$ ,  $\boxed{39}$

Rule : Add 5, subtract 2.

(c) 122, 120, 115, 113, 108, 106,  $\boxed{101}$ ,  $\boxed{99}$ ,  $\boxed{94}$

Rule : Subtract 2 then subtract 5.

(d) 4, 12, 36, 108,  $\boxed{324}$ ,  $\boxed{972}$ ,  $\boxed{2916}$

Rule : Multiply with 3 at every number to get next number.

(e) 1, 3, 6, 10, 15,  $\boxed{21}$ ,  $\boxed{28}$ ,  $\boxed{36}$

Rule : Consecutive numbers are added starting from 2.

2.  $1 + 2 = 3$

$$1 + 2 + 3 = 6$$

$$1 + 2 + 3 + 4 = 10$$

$$1 + 2 + 3 + 4 + 5 = 15$$

$$\begin{array}{cccc} | & & & \\ | & & & \\ | & & & \end{array}$$

$$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 = 36$$

$$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55$$

Rule :  $\frac{n(n+1)}{2}$  (where  $n$  is the total numbers to be added)

3. Number of triangles	1	2	3	4	5
Number of matchsticks	3	5	$\boxed{7}$	$\boxed{9}$	$\boxed{11}$

Rule :  $2n + 1$  (where  $n$  is number of triangles).

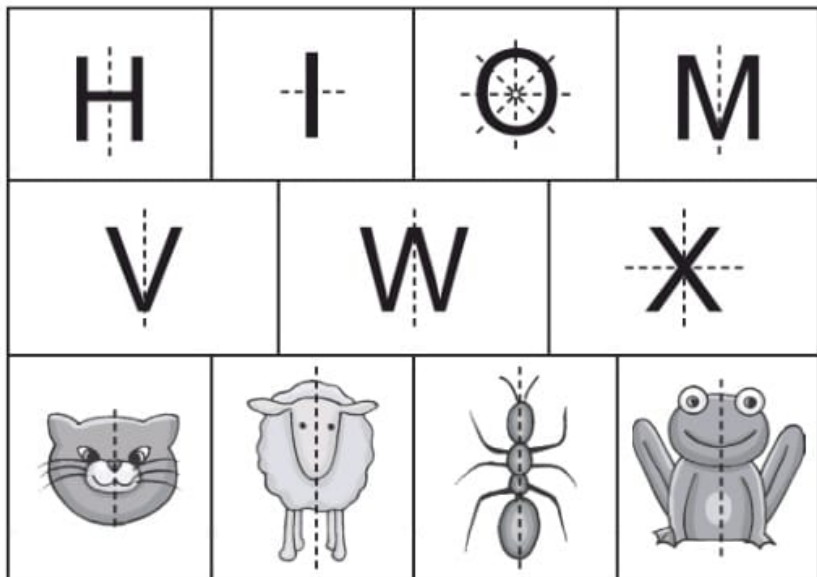
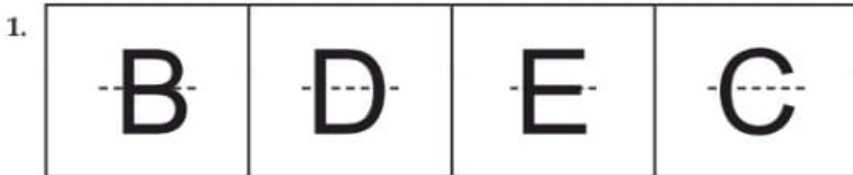
**Exercise 14B**

1. (a) 9                      12 15 22 5                      13 1 20 8  
          I                      L O V E                      M A T H
- (b) 8 15 13 5                      19 23 5 5 20                      8 15 13 5  
          H O M E                      S W E E T                      H O M E
- (c) 13 25                      13 15 20 8 5 18                      9 19                      2 5 19 20  
          M Y                      M O T H E R                      I S                      B E S T

2. (a) Do it yourself.

- (b) T O D A Y    I S                      H E R E  
          20 15 4 1 25    9 19                      8 5 18 5

**Exercise 14C**



**Note:** N have no lines of symmetry.

2. (a) No    (b) Yes    (c) Yes    (d) Yes    (e) Yes    (f) No  
 (g) Yes    (h) No    (i) No    (j) Yes    (k) Yes    (l) No

3. Do it yourself.

