



## Patterns of Numbers on the Number Line

### A. Choose the Correct Answer:

- What is the common difference in the pattern:  $-2, 0, 2, 4, 6\dots$ ?  
a) 1  
b) 2  
c)  $-2$   
d) 0
- Which number comes next in the pattern:  $5, 2, -1, -4\dots$ ?  
a)  $-6$   
b)  $-7$   
c)  $-8$   
d)  $-9$
- Which of these number patterns decreases by 3 each time?  
a) 3, 6, 9, 12  
b) 0,  $-3$ ,  $-6$ ,  $-9$   
c) 2, 1, 0,  $-1$   
d) 10, 9, 8, 7

### B. Write the Missing Terms to Complete the Sentences:

- On a number line, numbers increase as we move to the \_\_\_\_\_.
- The distance between any two consecutive integers on a number line is always \_\_\_\_\_.
- In the pattern 4, 1,  $-2$ ,  $-5$ , each number decreases by \_\_\_\_\_.
- The number that lies halfway between  $-6$  and 0 on the number line is \_\_\_\_\_.
- A jump of  $+4$  from  $-8$  lands on \_\_\_\_\_.

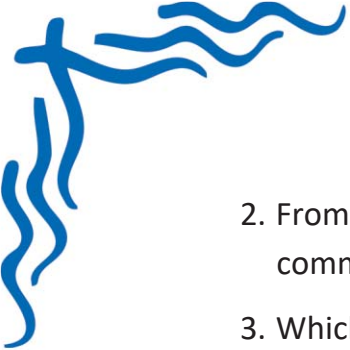
### C. Figure out the answers to these questions:

- Write the next four numbers in the pattern:  $-5, -1, 3, 7\dots$
- Draw a number line from  $-6$  to 6 and mark all the even numbers.
- A frog jumps 3 steps forward each time. If it starts at  $-9$ , where will it be after 5 jumps?
- Compare the patterns:
  - Pattern A: 2, 4, 6, 8
  - Pattern B:  $-2, 0, 2, 4$

Which one begins with a negative number and ends with a positive number?

### D. Challenge yourself with these questions:

- Identify the missing number: 12, 8, \_\_\_\_, 0,  $-4$



2. From which number should we start if we want to form a pattern with a common difference of  $-5$  that ends at  $-20$  in five terms?
3. Which number lies between  $-7$  and  $-3$  on the number line and is part of the pattern with a common difference of  $2$ ?
4. Create a number pattern of 5 terms using a common difference of  $-6$  starting from 18.

**E. Mark each sentence with a True (✓) or False (X):**

1. A pattern formed by subtracting the same number repeatedly will always move to the left on the number line.
2. All number patterns follow a fixed rule or logic.
3. A positive jump on the number line moves towards smaller numbers.
4. In the pattern  $-10, -8, -6, -4\dots$ , each term increases by 2.
5. The number 0 can be included in both increasing and decreasing number patterns.

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