

# Series

The following are the various types of Number series:

## I.ADDITION SERIES:

1) 4, 8, 12, 16, 20, \_\_\_\_

Ans: 24

**Explanation:** Each number is followed by the previous number added with 4.

$4+4=8$ ;  $8+4=12$ ;  $12+4=16$ ;  $16+4=20$ ;  $20+4=24$ . Hence 24 is the answer.

## II. SUBTRACTION SERIES:

2) 50, 45, 40, 35, 30, \_\_\_\_

Ans: 25

**Explanation:** Each term is followed by the previous number minus 5.

$50-5=45$ ;  $45-5=40$ ;  $40-5=35$ ;  $35-5=30$ ;  $30-5=25$

## III. PRODUCT SERIES :

3) 6, 30, 150, 750, \_\_\_\_

Ans: 3750

**Explanation:** The given numbers are multiplied by 5 to get the next number.

## IV. ODD NUMBER SERIES:

4) 3, 5, 7, 9, 11, \_\_\_\_

Ans: 13

**Explanation:** The given numbers are a series of Odd numbers. Hence the odd number next to 11 is 13. (Odd numbers are those which are not divisible by 2)

## V. PRIME NUMBER SERIES:

5) 1, 5, 11, 17, \_\_\_\_

Ans: 23

**Explanation:** The given numbers are a series of Prime numbers obtained by considering alternate prime numbers. The prime numbers are those which do not have factors other than 1 and itself. (1, 3, 5, 7, 11, 13, 17, 23, 29... are examples of prime number series)

## VI. $n^2$ SERIES:

6) 9, 25, 49, 81, \_\_\_\_

Ans: 121

**Explanation:** Each number is followed by the square of the alternate numbers.  $3^2=9$ ;  $5^2=25$ ;  $7^2=49$ ;  $9^2=81$ ;  $11^2=121$

## VII. $n^3$ SERIES:

7) 8, 64, 216, 512, \_\_\_\_

Ans: 1000

**Explanation:** The given series is obtained by the cube of the consecutive even numbers ( $2^3=8$ ,  $4^3=64$ ,  $6^3=216$ ,  $8^3=512$  and  $10^3=1000$ )

**IX.  $n^2 \pm$  \_\_\_\_** (The blank can be any natural number. It may be  $n^2$ ,  $n^3$ )

8) 90, 132, 182, 240, \_\_\_\_

Ans: 306

**Explanation:** The given series is obtained by following the pattern of  $n^2+n$ .

$(9^2=81+9(n^2+n)=90$ ;  $11^2=121+11=132$ ;  $13^2=169+13=182$ ;  $15^2=225+15=240$ ;  $17^2=289+17=306$ )

**X.  $n^3 \pm$  \_\_\_\_\_**

(The blank can be any natural number. It may be  $n^2$ ,  $n^3$ )

9) 6, 13, 32, 69, \_\_\_\_\_

**Explanation:** The given series is obtained by following the pattern of  $n^2+5$ .

$$(1^3+5=6; 2^3+5=13; 3^3+5=32; 4^3+5=69; 5^3+5=130)$$

Series

1. 9, 17, 33, 65, ?  
a. 117                      b. 119                      c. 129                      d. 99
2. In the following number series a wrong number is given. Find out the wrong number.  
1, 3, 10, 21, 64, 129, 356, 777  
a. 129                      b. 21                      c. 10                      d. 356
3. 9, 27, 31, 155, 161, 1127, ?  
a. 316                      b. 1135                      c. 1288                      d. 2254
4. Sunday, Monday, Wednesday, Saturday, Wednesday, Monday, ....  
a. Sunday, Sunday  
b. Sunday, Monday  
c. Sunday, Wednesday  
d. Sunday, Saturday
5. Look carefully for the pattern, and then choose which pair of numbers comes next.  
2 44 4 41 6 38 8  
a. 10 12                      b. 35 32                      c. 34 9                      d. 35 10                      e. 10 5
6. 11 14 14 17 17 20 20  
a. 23 23                      b. 23 26                      c. 21 24                      d. 24 24                      e. 24 27
7. 2 3 4 5 6 4 8  
a. 9 10                      b. 4 8                      c. 10 4                      d. 9 4                      e. 8 9
8. 10 20 25 35 40 50 55  
a. 70 65                      b. 60 70                      c. 60 75                      d. 60 65                      e. 65 70
9. Look at this series: 70, 71, 76, \_\_, 81, 86, 70, 91, ... What number should fill the blank?  
a. 70                      b. 71                      c. 80                      d. 96
10. 2, 7, 14, 23, ?, 47  
a. 31                      b. 28                      c. 34                      d. 38
11. DKY FJW HIU JHS  
a. KGR                      b. LFQ                      c. KFR                      d. LGQ
12. 8 12 21 30 46  
a. 54                      b. 62                      c. 50                      d. 34
13. 2, 2, 5, 13, 28  
a. 50                      b. 51                      c. 52                      d. 53
14. 1, 2, 5, 12, 27, 58, 121  
a. 246                      b. 247                      c. 248                      d. 249