SNS COLLEGE OF TECHNOLOGY

An Autonomous Institution

Coimbatore-35

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

23GET275 – VQAR I

II YEAR/ III SEMESTER

UNIT 3 – VERBAL REASONING I

TOPIC 5 :Number Series

Arithmetic Series

In this type of series, the difference between consecutive terms remains constant. For example, 2, 4, 6, 8, 10, where the common difference is 2.

Geometric Series:

In a geometric series, each term is obtained by multiplying the previous term by a fixed common ratio. For example: 2, 4, 8, 16, 32, where the common ratio is 2.

Mixed Series

Mixed Series:

Mixed series combine elements of both arithmetic and geometric progressions. They may involve alternating patterns or a mix of addition and multiplication.

Square, Cube, and Power Series: These series involve terms that are squares, cubes, or raised to some power. For example: 1, 4, 9, 16, 25 (squares), or 1, 8, 27, 64, 125 (cubes).

Prime Number Series

Fraction and Decimal Series: Some series involve fractions or decimals, and you need to identify the underlying pattern in these cases.

Alternate Number Series: In this type, certain numbers may be skipped in the series, and you must identify the pattern for the missing numbers.

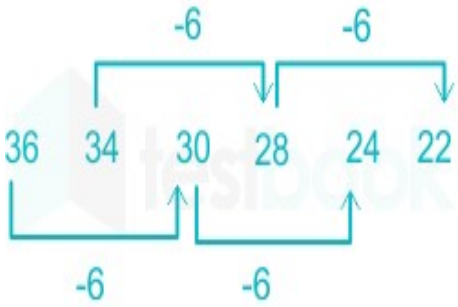
Prime Number Series: These series are composed of prime numbers, and you need to determine the logic behind the selection of prime numbers.

Problems

1.Look at this series: 36, 34, 30, 28, 24... What number should come next?

Solution:

Logic: The alternate numbers are decreasing by 6.



So, the next number will be 22 in the series.

Problems

2. Look at this series: 22, 21, 23, 22, 24, 23... What number should come next?

Solution

The correct option is C 25

In this simple alternating subtraction and addition series; 1 is subtracted, then 2 is added, and so on. The pattern is -1, +2, -1, +2, -1, +2...

So, Next term = 23 + 2 = 25

Problems

3.Look at this series: 53, 53, 40, 40, 27, 27... What number should come next?

Solution:

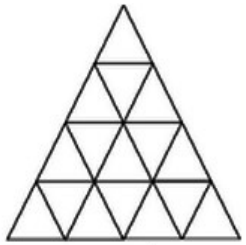
The series is 53, 53, 40, 40, 27, 27... (53),(53 - 13 = 40), (40), (40 - 13 = 27) (27), (27 - 13 = 14), (14)... So the answer is b = 14.

4.Find the Odd Man out: 1, 8, 27, 64, 124, 216, 343

The odd one out among 8, 27, 64, 100, 125, 216, 343 is 100, because it has no place in the series. All the others are cubes of natural numbers from 2 to 7. So, 124 is odd.

Problems

Find the number of triangles in the given figure



$n = 4$

Total Number of triangles = $\frac{n(n+2)(2n+1)}{8}$ where, n = number of triangles in sides

$= \frac{4(4+2)(2\times 4+1)}{8} = \frac{4\times 6\times 9}{8} = 27$

Problems

Count the number of triangles in the given figure

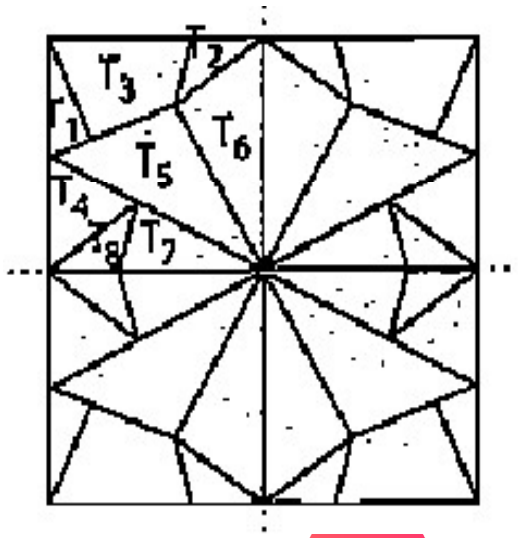
A-38 B-36 C-40 D-45

Figure is symmetrical about the dotted line

Number of △'s in first quarter : T1,T2,T6,T5,T4,T7,T8,T7T8,T4T8T7

Number of triangles in four quarters

=9×4=36



THANK YOU