NUMBER SERIES

❖ Find the missing numbers in the following series.
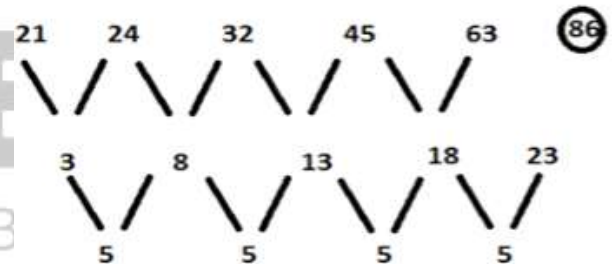
1) 7, 10, 16, 28, X, 100

$$7 \quad 10 \quad 16 \quad 28 \quad 52 \quad 100$$
$$3 \quad 6 \quad 12 \quad 24 \quad 48$$

2) 9, 11, 16, 26, ?, 69

$$9 \quad 11 \quad 16 \quad 26 \quad 43 \quad 69$$
$$2 \quad 5 \quad 10 \quad 17 \quad 26$$

$$2 \quad 5 \quad 10 \quad 17$$
$$3 \quad 5 \quad 7 \quad 9$$
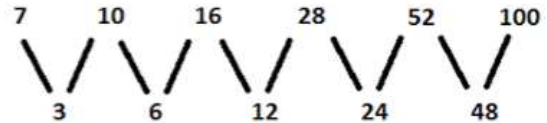
3)   21, 24, 32, 45, 63, ?
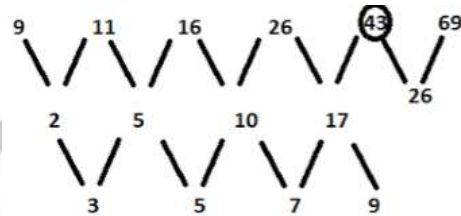
$$21 \quad 24 \quad 32 \quad 45 \quad 63 \quad 86$$
$$3 \quad 8 \quad 13 \quad 18 \quad 23$$
$$5 \quad 5 \quad 5 \quad 5$$

4) 74, 92, 115, 143, 176, X, 257

The series follows the following pattern:

⇒ 74 + 18 = 92

⇒ 92 + 23 = 115

⇒ 115 + 28 = 143

⇒ 143 + 33 = 176

⇒ 176 + 38 = **214**

⇒ 214 + 43 = 257

5) 3, 17, 45, 87, X, 213

The series follows the following pattern:

$\Rightarrow 3 + 14 = 17$

$\Rightarrow 17 + 28 = 45$

$\Rightarrow 45 + 42 = 87$

$\Rightarrow 87 + 56 = \mathbf{143}$

$\Rightarrow 143 + 70 = 213$

6) 7, 3.5, 3.5, 7, 28, X .

The series follows the following pattern:

$\Rightarrow 7 \times 0.5 = 3.5$

$\Rightarrow 3.5 \times 1 = 3.5$

$\Rightarrow 3.5 \times 2 = 7$

$\Rightarrow 7 \times 4 = 28$

$\Rightarrow 28 \times 8 = \mathbf{224}$

7) 6, 4, 5, 11, 39, ?

Ans. c) 189

$6 \times 1 - 2 = 4$

$4 \times 2 - 3 = 5$

$5 \times 3 - 4 = 11$

$11 \times 4 - 5 = 39$

$39 \times 5 - 6 = 189$

8) 4, 16, 26, 34, 40, ?

Ans. e) 44

4.........16.........26...........34..........40.........

.......+12.....+10..........+8...........+6..........+4

Answer: 40 + 4 = 44

9) 7, 6, 8, 15, 44, ?

Ans. e) 195

$7 \times 1 - 1^2 = 6$

$6 \times 2 - 2^2 = 8$

$8 \times 3 - 3^2 = 15$

$15 \times 4 - 4^2 = 44$

$44 \times 5 - 5^2 = 195$

10) 6, 3.5, 4.5, 11, 48, ?

Ans. c) 392

$6 \times 0.5 + 0.5 = 3.5$

$3.5 \times 1 + 1 = 4.5$

$4.5 \times 2 + 2 = 11$

$11 \times 4 + 4 = 48$

$48 \times 8 + 8 = 392$

11) 21, 35, 30, 44, 39, ?

Ans. b) 53

$21 + 14 = 35$

$35 - 5 = 30$

$30 + 14 = 44$

$44 - 5 = 39$

$39 + 14 = 53$

12) 500, x, 250, 750, 187.5

The series follows the following pattern:

$\Rightarrow 500 \times 1 = \mathbf{500}$

$\Rightarrow 500 \div 2 = 250$

$\Rightarrow 250 \times 3 = 750$

$\Rightarrow 750 \div 4 = 187.5$

13) 729, 486, 324, 216, ?

The given series follows the following pattern.

$\Rightarrow 729 \times (2/3) = 486$

$\Rightarrow 486 \times (2/3) = 324$

$\Rightarrow 324 \times (2/3) = 216$

$\Rightarrow 216 \times (2/3) = 144$

14) 38, 39, 43, 52, x, 93, 129

The series follows following pattern:

$\Rightarrow 38 + 1 = 39$

$\Rightarrow 39 + 4 = 43$

$\Rightarrow 43 + 9 = 52$

$\Rightarrow 52 + 16 = \mathbf{68}$

$\Rightarrow 68 + 25 = 93$

$\Rightarrow 93 + 36 = 129$

15) 5, 16, 65, 326, ?

Here the pattern follows

$\Rightarrow 5 \times 3 + 1 = 16$

$\Rightarrow 16 \times 4 + 1 = 65$

$\Rightarrow 65 \times 5 + 1 = 326$

$\Rightarrow 326 \times 6 + 1 = 1957$