

Logical Sequence

1. Find the next term 1, 1, 2, 8, 3, 27, 4

$$= 1, 1, 2, 8, 3, 27, 4 \times$$

$$\begin{array}{cccc} \downarrow & \downarrow & \downarrow & \downarrow \\ 1^3 & 2^3 & 3^3 & 4^3 \end{array}$$

$$\Rightarrow 4^3 = 64$$

Ans = 64

2. Find the wrong number in their series 2, 9, 28, 65, 126, 216, 344?

$$2, \quad 9, \quad 28, \quad 65, \quad 126, \quad 216, \quad 344$$

$$1^3 + 1 \quad 2^3 + 1 \quad 3^3 + 1 \quad 4^3 + 1 \quad 5^3 + 1 \quad 6^3 \quad 7^3 + 1$$

So 216 is the wrong number in this series.

3. Find the wrong number in the series

$$10, 14, 28, 32, 64, 68, 132$$

$$\begin{array}{ccccccc} 10, & 14, & 28, & 32, & 64, & 68, & 132 \\ \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \\ 4 & 14 \times 2 & 4 & 32 \times 2 & 4 & 68 \times 2 & \end{array}$$

$$68 \times 2 = 136$$

So the wrong number is 132

4. Find out the missing term in the series 42, 30, x, 12, 6

$$42, 30, ?, 12, 6$$

$$12 \quad 10 \quad 8 \quad 6$$

$$30 - 10 = 20$$

Ans : 20

5. Insert the missing number 1, 8, 27, 64, 125, 216, ?

1, 8, 27, 64, 125, 216, ?

| | | | | | |

1^3 2^3 3^3 4^3 5^3 6^3 7^3

Ans : 343

6. Insert the missing number 2, 6, 12, 20, 30, 42, 56, ?

2, 6, 12, 20, 30, 42, 56, ?

~~~~~

4 6 8 10 12 14 16

$$56 + 16 = 72$$

Ans : 72

7. Find the odd man out 4, 9, 19, 39, 79, 149, 319

4, 9, 19, 39, 79, 149, 319

$$4 \times 2 + 1 \quad 9 \times 2 + 1 \quad 19 \times 2 + 1 \quad 39 \times 2 + 1 \quad 79 \times 2 + 1 \quad 159 \times 2 + 1$$

$79 \times 2 + 1$  should be 159

So the odd one is 149.

8. Find the wrong number in the given series 5, 11, 23, 47, 96, 191, 383

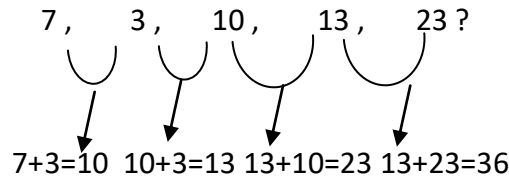
5, 11, 23, 47, 96, 191, 383

$$5 \times 2 + 1 \quad 11 \times 2 + 1 \quad 23 \times 2 + 1 \quad 47 \times 2 + 1 \quad 96 \times 2 + 1 \quad 193 \times 2 + 1$$

$96 \times 2 + 1$  should be 193

So the odd one is 191.

9. The next term in the series 7, 3, 10, 13, 23 ?



$13 + 23 = 36$

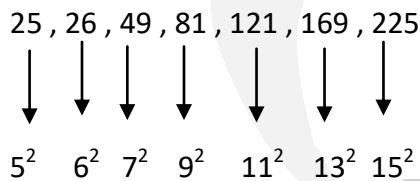
Ans : 36

10. Find the odd man out 3, 5, 7, 12, 17, 19

Expect 12 all other number are prime numbers

So the odd man is 12

11. Find the add number in the given seeies 25, 26, 49, 81, 121, 169, 225



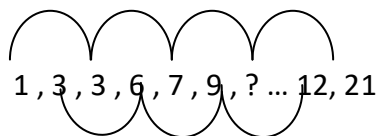
Expect 6 all other values.

12. Find the odd man out in the series 2, 3, 4, 4, 6, 8, 9, 12, 16

- 1<sup>th</sup> 4<sup>th</sup> 7<sup>th</sup> terms 2, 4, 9 =  $2 \times 2 = 4$ ,  $4 \times 2 = 8$
- 2<sup>th</sup> 5<sup>th</sup> 8<sup>th</sup> terms 3, 6, 12 =  $3 \times 3 = 6$ ,  $6 \times 2 = 12$
- 3<sup>rd</sup> 6<sup>th</sup> 9<sup>th</sup> terms 4, 6, 16 =  $4 \times 2 = 8$ ,  $8 \times 2 = 16$

So 9 is wrong The 9 should be replaced by 8 .

13. Find the missing number 1, 3, 3, 6, 7, 9, ? ... 12, 21

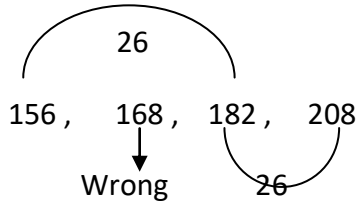


$$1, 3, 7, ?, 21 \quad = 7 + 6 = 13, \quad 18 + 8 = 21$$

So missing number = 13

14 . Find the wrong number in the sequence

156 , 168 , 182 , 208



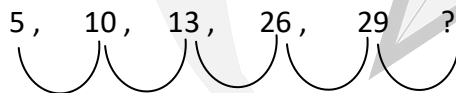
Expect 168 all the other value ,

Have the difference 26

So the wrong number is 126.

15 . Find the next number in the following

Series 5 , 10 , 13 , 26 , 29



X2 +3 X2 +3 X2

$$29 \times 2 = 58$$

Ans : 58

16 . The odd man out in the following

1 , 144 , 16 , 25 , 49 , 81 , 121 , 36 , 65

Expect 65 all other values are

Square of 1 , 12 , 4 , 5 , 7 , 9 , 11 , 6

17 . The odd man out in the following

1 , 125 , 8 , 216 , 1000 , 343 , 729 , 100 is

Expect 100 all the other values

Are cubes 1, 125, 2, 6, 10, 7, 9.

18. find the next number of the square

0, 5/2, 8, 17/2, 24, 37/2, 48

|                                                                                                                                                                                                                          |                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <math>0 + \frac{5}{2} = \frac{5}{2}</math></li> <li>• <math>\left(-\frac{5}{2} \times 2\right) + 3 = 8</math></li> <li>• <math>8 + \frac{9}{2} = \frac{17}{2}</math></li> </ul> | <ul style="list-style-type: none"> <li><math>\frac{17}{2} \times 2 + 7 = 24</math></li> <li><math>24 + \frac{13}{2} = 37/2</math></li> <li><math>\frac{37}{2} \times 2 + 111 = 48</math></li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

$$48 + \frac{17}{2} = \frac{65}{2}$$

So the next number is 65/2

19. Find the missing term 3, 15, ?, 63, 99, 143

3, 15, ?, 63, 99, 143

|                                                                                                                                                                             |                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <math>2 \times 2 - 1 = 3</math></li> <li>• <math>4 \times 4 - 1 = 15</math></li> <li>• <math>6 \times 6 - 1 = 35</math></li> </ul> | <ul style="list-style-type: none"> <li>* <math>8 \times 8 - 1 = 63</math></li> <li>* <math>10 \times 10 - 1 = 99</math></li> <li>* <math>12 \times 12 - 1 = 143</math></li> </ul> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

So the missing number is 35

20. complete the series AZ, GT, MN, ?, YB

|        |       |
|--------|-------|
| A+5=G  | Z-5=T |
| G+5= M | T-5=N |
| M+5=S  | N-5=H |
| S+ 5=Y | H-5=B |

Missing series Ans : SH

21. Find the next alphabet In the Sequence B,E,I,N ,x ?

B+2,E+3,I+4,N+5,T

So the answer is T

22 . Find the missing letters in the series AZ , GT , MN , x , YB ?

|        |       |
|--------|-------|
| A+5=G  | Z-5=T |
| G+5= M | T-5=N |
| M+5=S  | N-5=H |
| S+ 5=Y | H-5=B |

So the answer is SH

23 . Find the next letter in the following sequence of alphabet M N O L R I V?

Inverse of M is N,

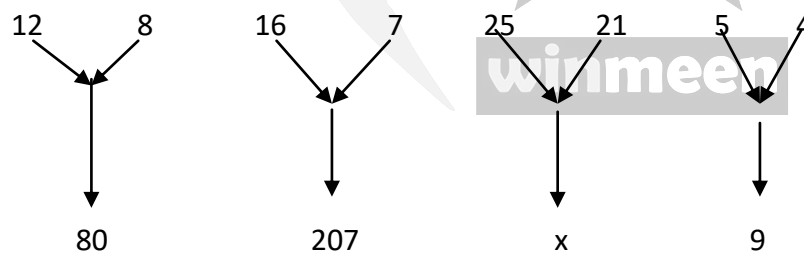
Inverse of O is L,

Inverse of R is I,

So Inverse of V is E.

So the answer E

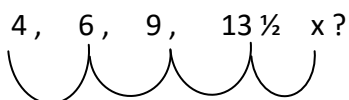
24 . Find the missing number in the series



$144 - 84 = 80$      $256 - 49 = 207$      $625 - 441 = 184$      $25-16=9$

25 . Find the next number n the following ?

Series 4 , 6 , 9 ,  $13 \frac{1}{2}$



$4 \times 1.5$     $6 \times 1.5$     $9 \times 1.5$     $13 \frac{1}{2} \times 1.5$

$= 20.25 = 20 \frac{1}{4}$

26 . Find the next number in the series

5 , 23 , 59 , 119 , 209

5, 23, 59, 119, 209, 335

$23 - 5 = 18$     $59 - 23 = 36$     $119 - 59 = 60$     $209 - 119 = 90$

18   36   60   90   126

$18 - 36 = 18$     $36 - 60 = 24$     $60 - 90 = 30$     $90 - 126 = 36$

So the missing number is 335

27 . The next term of the sequence 25 , 36 , 49 , 64 , 81

25   36   49   64   81   ?

$5^2$     $6^2$     $7^2$     $8^2$     $9^2$     $10^2$

Ans : 200

28 . How many two digit numbers are divisible by 13 ?

$13 \times 7 = 91$

= So 7 two digit numbers are divisible by 13

29 . Find the missing number in place of  $3 : 11 :: 7 : ?$

$3 : 11 :: 7 : ?$

$(3^2) + 2$     $(7^2) + 2 = 49 + 2$

Ans : 51

30 . Find the number in the place of question mark 21 , 25 , 34 , 50 , ? , 111 , 160

21, 25, 34, 50, ?, 111, 160

4      9      16    25    36      49

$2^2$      $3^2$      $4^2$      $5^2$      $6^2$        $7^2$

$50 + 25 = 75$

