Wrong Number Series: Sometimes, a question is asked to find out the wrong number in a series. This is a bit difficult task. This is because from the point where you get a wrong number, all other succeeding numbers would also be look wrong. You can only solve such a question comfortably only if you have expertise in handling the questions on series very well. See the following example.

Example No. 1: Find the wrong number in the following series.

15 46 63 71 75 77 78

Solution: In this question, if you start from the beginning, firstly the difference is 31, then the difference is 17, then the difference is 8. So there is no logic. If you start backwards,you can see that firstly, 1 is added, then 2 is added, then 4 is added, then 8,16 and 32 should have been added. So you have got the right clue. So 15 + 32 the first number should be 47 and afterwards, the series becomes + 16, + 8, + 4and so on.

Example No. 2: Find the wrong number in the following series.

10 21 43 85 175

Solution: In this question, the logic involved is ´ 2 + 1 only.But the error lies where instead of 43 ´ 2 + 1 = 87, 85 has been given. So 85 is the wrong number.

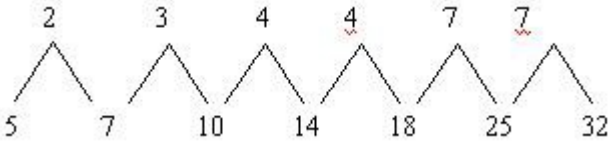
*** Replacing the Wrong Number:** Sometimes, the question is related to not only finding the wrong number, but also with finding the number which should replace the wrong number identified. You can see the following example.

Example No. 3: In the following series, a wrong number is given. Find out that wrong number, and decide which option should replace that wrong number.

1 4 8 9 25 16 64

Solution: In this sequence, two consecutive series are going simultaneously relating to perfect cubes and perfect squares respectively. Firstly 1 cube is given, then 2 cube is given,then 3 cube should have been there which should be 27, but 27 is written at that place. And then there is the cube of 4, i.e 64. And the series given is alternately square of 2, then square of 3 and then square of 4 and so on. You may note this that in order to increase the confusion, the wrong number is also a perfect square.

Example No. 4: In the following series, a wrong number is given. Find out that wrong number, and decide which option should replace that wrong number.



Solution: In this question the series is related to + 2, + 3, + 4 and then there is + 4 again, then + 7, it seems odd. Instead of second + 4 there should be + 5. This means 14 + 5 => 19, should be there instead of 18. And thereafter, the series would become + 6 and + 7 and it would be a right logical series. So 19 is the answer.

Twin Series: This is a newly included type of series in which two series are given, and below that the starting point of another series is given. Now you are supposed to analyze the logic from the first series and apply the same logic to form the second series,and answer the question given below the second series. See the following example.

Example No. 1: In the following question a series is given and it is followed by the starting point of another series. After this, a question is given, you have to complete the second series by applying the same logic as in the first given series, and then you have to answer the question.

5 8 12 17 23 30
9 a b c d e

Which number should come in place of c?

Solution: In this question, it canbe analyzed that the difference between the numbers is 3, 4, 5, 6 and 7. So youhave to apply the same logic and start the series with 9. The first numberafter 9 would be 9 + 3 = 12 (this would replace letter a), the second numberwould be 12 + 4 = 16 (this would replace letter b) and the third number wouldbe 16 + 5 = 21 (this would replace the letter c). You need not to go furtherbecause the question is related to c only.

Example No. 2: In the following question, a series is given and it is followed by the starting point of another series. After this a question is given, you have to complete the second series by applying the same logic as in the first given series, and then you have to answer the question.

8 9 13 22 38 63
12 a b c d e

Which number should come in place of d?

Solution: In this question, the squares of the natural numbers are added. Firstly 1 is added, then 4, then 9and so on. You have to apply the same logic and add 1, 4, 9 and 16 to get the value of d. After adding 1, you'll get 13 which is the value of a, then after adding 4 you'll get 17, which is the value of b, after an addition of 9 you'll get 26 which is the value of c.After this add 16 and get 42, which is the value of d.

Example No. 3: In the following question, a series isgiven and it is followed by the starting point of another series. After this a question is given, you have to complete the second series by applying the same logic as in the first given series, and then you have to answer the question.

2 3 5 7 11 13
23 a b c d e

Which number should come in place of b?

Solution: In this case, it can be seen that the series is of prime numbers. As the second series is starting from23, the next prime number is 29 (which is at the place of a), thereafter the next prime number is 31 (which would be at the place

of b) and is the right answer.

Some other common types of number series involve the following types of logic:

1.Prime Numbers: **EXAMPLE** : **3,5, 7, 11, 13, 17, ? (19)**

2.Successive Addition, Deletion, Multiplication etc.

EXAMPLE: **4, 6, 10, 16, 24, 34, …?…60 Add +2, +4, +6, +8, +10, … (46)**

3. Adding different numbers at regular intervals:

EXAMPLE: **17, 23, 29, 35, ….?….., 47 Adding 6 each time** (**41**)

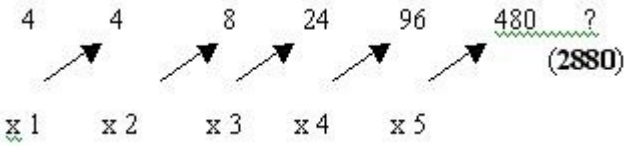
EXAMPLE: **8, 23, 44,……,104, 143 Adding 15, 21, 27, etc. having a fixed gapof 6 each** (**71**)

4.Adding/ deleting prime/odd/even numbers in the preceding terms:

EXAMPLE : **1,2, 5, 10, 17, …?….37** ***Adding odd numbers 1, 3, 5, 7, 9*** (**26**)

5.Terms regularly multiplied/divided by natural/odd/even numbers

EXAMPLE:

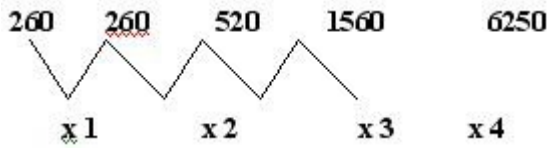


Thenext number, as is clear from the above illustration, should be 480 x 6=2880

6.Square/Cube of a number Plus/Minus any natural number
EXAMPLE: **2,10, 30, 68, …?…, 222 13+ 1, 23 + 2, 33 + 3, 43 + 4….. (130)**

EXAMPLE:**0, 2, 6, 12, …?…., 30 12- 1, 22 - 2, 32 - 3, 42 - 4, 52 -5…. (20)**

Sometimes a double series combining numbers and letters may also be given. The logic involved in such cases is also the same as we have discussed earlier. Questions on wrong or misfit number in the series involve the same kind of logic which we have discussed before.
Look at this one:



We have to find the number which is a misfit in the series. As illustrated above, the last number in the series should have been 6240, which is not there. Therefore, 6250 is the correct answer.