FINDING WRONG NUMBERS

In this chapter, 'finding wrong numbers', which is yet another type of problem that will be asked in most of the competitive exams is discussed.

In this type of problem, a series of numbers will be given, out of which one number does not belong to that series, which has to be found out.

In each of the series given below in questions one number is wrong. Find it.

1. 2, 5, 8, 11, 16
   (a) 11 (b) 8 (c) 16
   (d) 5 (e) None of these
2. 8, 10, 14, 18, 28, 34, 50, 66
   (a) 28 (b) 10 (c) 18
   (d) 50 (e) 14
3. 36, 28, 26, 22, 21
   (a) 26 (b) 21 (c) 36
   (d) 28 (e) None of these
4. 5, 6, 7, 8, 10, 11, 14, 16
   (a) 10 (b) 7 (c) 16
   (d) 6 (e) None of these
5. 32, 33, 31, 34, 30, 36
   (a) 31 (b) 36 (c) 34
   (d) 32 (e) None of these
6. 8, 12, 16, 20, 26, 28
   (a) 28 (b) 26 (c) 12
   (d) 16 (e) 35
7. 6, 9, 18, 21, 42, 45, 96, 93
   (a) 21 (b) 9 (c) 96
   (d) 45 (e) 93
8. 25, 20, 16, 10, 5
   (a) 10 (b) 20 (c) 16
   (d) None of these
9. 3, 5, 8, 12, 22, 39
   (a) 39 (b) 12 (c) 8
   (d) 22 (e) None of these
10. 8, 24, 12, 36, 16, 54, 27
    (a) 12 (b) 27 (c) 54
    (d) 16 (e) 36
11. 2, 6, 9, 12, 16, 18, 23
    (a) 9 (b) 16 (c) 23
    (d) 18 (e) None of these
12. 1, 3, 7, 14, 31, 63
    (a) 31 (b) 63 (c) 7
    (d) 14 (e) None of these
13. 7, 15, 32, 67, 134, 281
    (a) 32 (b) 134 (c) 281
    (d) 67 (e) None of these
14. 8, 17, 33, 67, 134, 267
    (a) 267 (b) 33 (c) 67
    (d) 134 (e) None of these
15. 3, 7, 15, 31, 62, 127
    (a) 15 (b) 62 (c) 31
    (d) 127 (e) None of these
16. 4, 9, 17, 35, 70, 139
    (a) 35 (b) 139 (c) 70
    (d) 17 (e) None of these
17. 17, 19, 16, 20, 14, 21
    (a) 14 (b) 19 (c) 20
    (d) 21 (e) None of these
18. 4, 6, 9, 14, 28, 40
    (a) 40 (b) 28 (c) 9
    (d) 14 (e) None of these
19. 3, 7, 16, 35, 70, 153
    (a) 70 (b) 16 (c) 153
    (d) 35 (e) None of these
20. 8, 0, 15, 9, 22, 18, 30, 27, 36
    (a) 22 (b) 18 (c) 27
    (d) 30 (e) None of these
21. 3, 5, 4, 8, 6, 12, 10
    (a) 8 (b) 6 (c) 4
    (d) 5 (e) 10
22. 48, 47, 44, 40, 32, 23, 12
    (a) 47 (b) 44 (c) 40
    (d) 32 (e) 23
23. 15, 20, 16, 22, 19, 23, 24
    (a) 23 (b) 19 (c) 22
    (d) 16 (e) 20
24. 1, 2, 4, 8, 48, 240, 1440
    (a) 4 (b) 240 (c) 48
    (d) 8 (e) 2
25. 12, 19, 14, 21, 28, 23, 18
    (a) 19 (b) 14 (c) 21
    (d) 28 (e) 23
26. 72, 56, 42, 30, 20, 15, 6
    (a) 56 (b) 42 (c) 30
    (d) 20 (e) 15
27. 1, 2, 6, 20, 120, 720, 5040
    (a) 6 (b) 2 (c) 20
    (d) 120 (e) 720

28. 7, 16, 34, 72, 142, 286, 574
(a) 16 (b) 34 (c) 72
(d) 142 (e) 286

29. 4, 10, 22, 46, 94, 192, 382
(a) 10 (b) 22 (c) 46
(d) 94 (e) 192

30. 1, 2, 4, 16, 48, 240, 1440
(a) 2 (b) 4 (c) 16
(d) 48 (e) 240

31. 386, 192, 98, 50, 26, 14, 8
(a) 192 (b) 98 (c) 50
(d) 26 (e) 14

32. 2, 4, 8, 16, 36, 64, 128
(a) 4 (b) 8 (c) 16
(d) 36 (e) 64

33. 72, 6, 48, 6, 60, 20, 180
(a) 6 (b) 48 (c) 60
(d) 20 (e) 180

34. 4, 6, 9, 18, 34, 66, 130
(a) 6 (b) 18 (c) 130
(d) 34 (e) 9

35. 510, 254, 126, 64, 30, 14, 6
(a) 254 (b) 126 (c) 510
(d) 64 (e) 30

36. 3, 14, 33, 68, 95, 138, 189
(a) 14 (b) 68 (c) 14
(d) 33 (e) 138

37. 3, 7, 11, 18, 27, 38, 51
(a) 7 (b) 27 (c) 38
(d) 11 (e) 3

38. 89, 85, 80, 74, 68, 59, 50
(a) 85 (b) 80 (c) 74
(d) 68 (e) 59

39. 2, 5, 10, 17, 25, 37
(a) 5 (b) 17 (c) 25
(d) 37 (e) None of these

40. 0, 7, 26, 63, 126, 215, 342
(a) 126 (b) 63 (c) 26
(d) 7 (e) 342

TEST OF FINDING WRONG NUMBERS

ANSWERS WITH EXPLANATION

1. (c) Since the numbers go up by 3 each time, the wrong number in this series is 16 which should be replaced by 14.

2. (a) There are two alternate series, one starting with 8 and an another starting with 10, each formed by doubling the preceding number in its own series and subtracting 2. Hence 28 must be replaced by 26.

3. (a) Each figure is half the preceding number plus 10. Hence 26 must be replaced by 24.

4. (c) There are two alternate series, one starting with 5 and an another starting with 6, each formed by adding 2, 3, 4 successively with the preceding number in its own series. Hence 16 must be replaced by 15.

5. (b) The series goes on as +1, –2, +3, –4, thus 36 must be replaced by 35.

6. (b) Since the numbers go up by 4 each time, 26 must be replaced by 24.

7. (c) The series is formed by alternately adding 3 and doubling the preceding number. Hence, 96 must be replaced by 90.

8. (c) Since the numbers in the series are decreased by 5 each time, 16 must be replaced by 15.

9. (b) Each number starting from 5 is double the preceding number –1, –2, –3, etc. Hence, 12 must be replaced by 13 (*i.e.*) 8+8–3.

10. (d) In this series, numbers are alternately multiplied by 3 and divided by 2, hence 16 must be replaced by 18.

11. (e) There are two alternate series, one starting with 2 and an another starting with 6, which go up by 7 and 6 respectively.

12. (d) In this series, each number is double the preceding number +1. Hence, 14 must be replaced by 15.

13. (b) In this series, each number is formed by doubling the preceding number and adding 1, 2, 3 etc. successively.

14. (d) In this series, each number is formed by doubling the preceding number and alternately adding 1 and subtracting 1. Hence 134 must be replaced by 133.

15. (b) Each number is double the preceding number +1. Hence, 62 must be replaced by 63.

16. (c) Each number is twice the preceding number with 1 added or subtracted from alternate numbers. Hence, 70 must be replaced by 69.

17. (a) Series goes on as +2, –3, +4, –5, +6. Hence, 14 must be replaced by 15.

18. (b) Each number is formed by doubling the preceding number and subtracting 2, 3, 4, etc. Hence, 28 must be replaced by 23.

19. (a) Each number is formed by doubling the preceding number and adding 1, 2, 3, etc. Hence, 70 must be replaced by 74.

20. (d) There are two alternate series, starting with 8 and 0, and they are going up by 7 and 9 respectively. Hence, 30 must be replaced by 29.

21. (e) The series goes on as +2, –1, +4, –2, +6, –3. Hence 10 must be replaced by 9.

22. (c) The series goes on as –1, –3, –5, –7, –9, –11. Hence 40 must be replaced by 39.

23. (a) The series goes on as +5, –4, +6, –3, +7, –2. Hence, 23 must be replaced by 26.

24. (d) The series is formed by multiplying the preceding number by 1, 2, 3, 4, 5, etc. *i.e.* 2 × 1; 2 × 2; 4 × 3; 12 × 4 etc. Hence 8 must be replaced by 12.

25. (d) The series goes on as +7, –5, +7, –5 and so on. Hence, 28 must be replaced by 16.

26. (e) The series is getting reduced by 16, 14, 12, 10, 8 and so on. Hence, 15 must be replaced by 12.

27. (c) The series goes on as ×2, ×3, ×4, ×5, ×6, ×7, (*i.e.* 1 × 2; 2 ×3; 6 × 4; 24 × 5 and so on). Hence, 20 must be replaced by 24.

28. (c) The series goes on as ×2 +2, ×2 +2 and so on. Hence 72 must be replaced by 70.

29. (e) The series goes on as ×2 +2, ×2 +2 and so on. Hence 192 must be replaced by 190.

30. (c) The series goes on as ×1, ×2, ×3 and so on. Hence 16 must be replaced by 12.

31. (a) The series goes on as ÷2+1, ÷2+1 and so on. Hence 192 must be replaced by 194.

32. (d) Each number is formed by multiplying the preceding number by 2. Hence, 36 must be replaced by 32 (*i.e.* 16 × 2).

33. (d) The series goes on as 72÷12, 48÷8, 60÷4 and so on. Hence, 20 must be replaced by 15.

34. (e) See the series from the reverse side $\frac{130}{2}+1, \frac{66}{2}+1$ and so on. Hence, 9 must be replaced by 10.

35. (d) The series is ÷2–1, ÷2–1 and so on. Hence 64 must be replaced by 62.

36. (b) The series is 2^2–1, 4^2–2, 6^2–3, 8^2–4 and so on. Hence, 68 must be replaced by 60.

37. (a) The series is 1^2+2, 2^2+2, 3^2+2, 4^2+2 and so on. Hence, 7 must be replaced by 6.

38. (d) The series goes on as –4, –5, –6 and so on. Hence, 68 must be replaced by 67.

39. (c) The series is 1^2+1, 2^2+1, 3^2+1 and so on. Hence, 25 must be replaced by 26.

40. (a) The series goes on as 1^3–1, 2^3–1, 3^3–1 and so on. Hence, 126 must be replaced by 124.