Quantitative Aptitude

Wrong Number Series

Level-1

Q1 Find the wrong term
6 , 12 , 21 , 32 , 45 , 60
(A) 45 (B) 32
(C) 21 (D) 12
(E) 6

Q2 Find the wrong term
6 , 7 , 9 , 13 , 26 , 37 , 69
(A) 9 (B) 37
(C) 69 (D) 26
(E) 7

Q3 Find the wrong term
29 , 37 , 21 , 43 , 13 , 53 , 5
(A) 43 (B) 21
(C) 13 (D) 53
(E) 37

Q4 Find the wrong term
644 , 328 , 164 , 84 , 44 , 24 , 14
(A) 644 (B) 44
(C) 84 (D) 164
(E) 328

Q5 Find the wrong term
7.5 , 47.5 , 87.5 , 157.5 , 247.5 , 357.5 , 487.5
(A) 47.5 (B) 7.5
(C) 157.5 (D) 87.5
(E) 357.5

Q6 Find the wrong term
4 , 5.1 , 7.3 , 10.6 , 15 , 20 , 27.1
(A) 27.1 (B) 20
(C) 7.3 (D) 4
(E) 5.1

Q7 Find the wrong term
4 , 10 , 40 , 190 , 940 , 4680 , 23440
(A) None of these
(B) 940
(C) 10
(D) 23440
(E) 4680

Q8 Find the wrong term
38 , 39 , 43 , 52 , 70 , 93 , 129
(A) 39 (B) 129
(C) 93 (D) 52
(E) 70

Q9 Find wrong term,
61 , 82 , 124 , 187 , 270 , 376
(A) 61 (B) 82
(C) 124 (D) 270
(E) 187

Q10 Find the wrong term
13 , 16 , 21 , 27 , 39 , 52 , 69
(A) 16 (B) 52
(C) 27 (D) 39
(E) 21

Q11 Find wrong term,
289 , 306 , 340 , 389 , 459 , 544
(A) None of these (B) 306
(C) 389 (D) 459
(E) 289

Q12 Find the wrong term
141 , 156 , 147 , 162 , 153 , 165 , 159
(A) 159 (B) 165
(C) 147 (D) 153
(E) 156

Q13 Find the wrong term
14 , 19 , 29 , 40 , 44 , 51 , 59 , 82
(A) 82 (B) 29
(C) 44 (D) 51

(E) 59

Q14 Find the wrong term in the series
11 , 18 , 29 , 42 , 59 , 80 , 101
(A) 80 (B) 59
(C) 29 (D) 18
(E) 42

Q15 Find the wrong term in the given series.
201 196 181 146 121 76 21
(A) 201 (B) 196
(C) 181 (D) 146
(E) 121

Q16 Find the wrong term
0.5 , 2 , 1 , 4 , 32 , 512 , 16384
(A) 512 (B) 32
(C) 4 (D) 2
(E) 1

Q17 Find the wrong term
16 , 24 , 37 , 54 , 81 , 121.5
(A) 81 (B) 121.5
(C) 37 (D) 54
(E) 24

Q18 Find the wrong term in the following number series.
2 , 3 , 6 , 15 , 45 , 156.5 , 630
(A) 156.5 (B) 6
(C) 15 (D) 45
(E) 3

Q19 Find the wrong term
4 , 5 , 12 , 38 , 160 , 805 , 4836
(A) 4836 (B) 805
(C) 38 (D) 160
(E) 12

Q20 Find the wrong term in the following series.
14.2 , 16.3 , 12.1 , 18.4 , 10.6 , 20.5
(A) 20.5
(B) 10.6
(C) 18.4
(D) 12.1
(E) None of these

Level-2

Q1 Find the wrong number in the given series.
80 , 42 , 24 , 13.5 , 8.75 , 6.375 , 5.1875
(A) 42 (B) 6.375
(C) 24 (D) 13.5
(E) 8.75

Q2 Find the wrong term in the series
7 , 8 , 18 , 57 , 230 , 1165
(A) 7 (B) 8
(C) 18 (D) 57
(E) 230

Q3 Find wrong term,
20 , 38 , 74 , 148 , 290 , 578
(A) 148 (B) 38
(C) 74 (D) 290
(E) 578

Q4 Find the wrong term
3 , 7.5 , 15 , 37.5 , 76 , 167.5 , 375
(A) 7.5 (B) 15
(C) 37 (D) 76
(E) 167.5

Q5 Find the wrong term in the series.
3 , 7 , 16 , 32 , 56 , 93 , 142
(A) 142 (B) 7
(C) 32 (D) 16
(E) 56

Q6 Find the wrong term
251 , 252 , 254 , 227 , 243 , 118 , 154
(A) 154 (B) 243
(C) 227 (D) 252
(E) 251

Q7 Find the wrong term
2 , 6 , 10 , 19 , 36 , 69 , 134
(A) 10 (B) 2
(C) 6 (D) 69
(E) 134

Q8 Find the wrong term
2 , 3 , 8 , 31 , 154 , 924 , 6460
(A) 31 (B) 8
(C) 154 (D) 6460
(E) 924

Q9 Find the wrong term
2 , 11 , 38 , 197 , 1172 , 8227 , 65806
(A) None of these (B) 1172
(C) 197 (D) 38
(E) 11

Q10 Find the wrong term
1 , 3 , 9 , 31 , 128 , 651 , 3913
(A) 128 (B) 3913
(C) 1 (D) 3
(E) 31

Q11 Find the wrong term in the given series
7 27 93 301 915 2775 8361
(A) 93
(B) 301
(C) 915
(D) 2775
(E) All terms are correct

Q12 Find the wrong term
1331 , 2197 , 3375 , 4914 , 6859 , 9261 , 12167
(A) 12167 (B) 2197
(C) 9261 (D) 6859
(E) 4914

Q13 Find the wrong term in the series
1 , 3 , 10 , 36 , 152 , 760 , 4632
(A) 152 (B) 760
(C) 4632 (D) 36
(E) 3

Q14 Find the wrong term
2 , 9 , 28 , 65 , 126 , 216 , 344
(A) 344 (B) 28
(C) 216 (D) 65
(E) 9

Q15 **A series is 5, 5, 10, 65, 395, 3165. Find the odd one out.**
If another series follows the same pattern and starts with the wrong term of the above series, then find the wrong term and 4^{th} term of the series.
(A) 65, 45 (B) 395, 40
(C) 10, 65 (D) 395, 80
(E) None of these

Q16 **Direction: Study the data carefully and answer the following question.**
A series is given below with the wrong term P in it?
168, 108, 48, 24, 8, 3
P is what percent of the number, which will come in place of P?
(A) 60% (B) 96%
(C) 80% (D) 90%
(E) 70%

Q17 **Direction: Study the data carefully and answer the following question.**
A series is given below with the wrong term P.
3, 10, 34, 99, 301, 908
Find the difference between 50% and 80% of the number, which will come in place of P?
(A) 28.8 (B) 88.8
(C) 9.6 (D) 270
(E) 96

Q18 **Direction: Study the data carefully and answer the following question.**
Two series (I) and (II) are given below, with wrong term P is series (I) and wrong term Q in series (II).
(I): 6, 20, 47, 83, 132, 196
(II): 11, 15, 20, 31, 45, 67
Find that P is what percent of Q?
(A) 133.33% (B) 66.67%
(C) 44.44% (D) 29.85%
(E) 100%

Q19 **Direction: Study the data carefully and answer the following question.**
A series is given with one wrong term in it.
25, 35, 20, 40, 15, 55
If a new series is formed, whose 1st term is the wrong term of the given series and follows the same pattern as in the given series, then find that the 5th term of the new series will be equal to the which term of the given series?
(A) 2nd term (B) 5th term
(C) None of these (D) 3rd term
(E) 4th term

Q20 **Direction: Study the data carefully and answer the following question.**
A series is given below with the wrong term P.
30, 55, 104, 250, 394, 683
Find that the number, which will come in place of P is what percent of P?
(A) 98.5% (B) 86.67%
(C) 90% (D) 73.33%
(E) 80%

Level-3

Q1 **Directions : Find out the wrong number in the following number series.**
325, 546, 754, 936, 1078, 1170
(A) 936 (B) 546
(C) 325 (D) 1078
(E) 1170

Q2 **Direction: Study the data carefully and answer the following question.**
A series is given below with the wrong term P in it.
4, 6, 15, 30, 84, 246
If a new series is formed whose 1st term is P, 2nd term is (P + 1), 3rd term is (2nd term + 3), 4th term is (3rd term + 9), 5th term is (4th term + 27) and so on, then find the 6th term of the new series?
(A) 151 (B) 367
(C) 136 (D) 205
(E) 100

Q3 Find the wrong term
12 , 6 , 7.5 , 12.75 , 27.5 , 71.25
(A) None of these (B) 12
(C) 27.5 (D) 7.5
(E) 6

Q4 **Directions : Find out the wrong number in the following number series.**
115, 59, 33, 22, 18.5, 16, 20.875
(A) 20.875 (B) 115
(C) 18.5 (D) 22
(E) 16

Directions (5-7) Read the following passage and answer the given questions.
Directions: Based on the following number series give the answer to the questions.
I.1999, 1787, 1582, 1391, 1228, 1079
II. 212, 213, 230, 365, 608, 1939
III. 128, 192, 480, R, 7560

Q5 If P is the wrong term of series I, and Q is the wrong term of series II. Then what is the ratio of P: Q?
(A) 314: 115 (B) 614: 115
(C) 641:151 (D) 214: 57
(E) 217: 29

Q6 If R is the correct term for Series III and Q is the wrong term for Series II, then what is the value of Q + R?
(A) 3640 (B) 3208
(C) 2908 (D) 3840
(E) None of these

Q7 If another IVth series follows the pattern of IIIrd series and the first term of the IVth series is 24, then what is the sum of the third term of the series III and series IVth?
(A) 990 (B) 360
(C) 480 (D) 570
(E) 530

Q8 **Direction: Study the data carefully and answer the following question.**
A series is given below with one wrong term in it.
53, 68, 98, 143, 201, 278
Find the difference between the wrong term of the series and the next term of the series?
(A) 167 (B) 271
(C) 299 (D) 224
(E) 147

Q9 **Direction: Study the data carefully and answer the following question.**
A series is given below with wrong term P in it.
48, 44, 53, 35, 62, 26
If a new series is formed, whose 1st term is P and follows the same pattern as in the given series. Find the 4th term of the new series?
(A) 24 (B) 40
(C) 22 (D) 28
(E) 30

Q10 **Direction: Study the data carefully and answer the following question.**

A series is given below with the wrong term P in it.
12, 24, 44, 80, 108, 152
Find that the value of P is what percent of the number, which will come in place of P?

(A) 90%
(B) 72%
(C) 80%
(D) 88%
(E) 70%

Answer Key

Level-1

Q1	(E)	Q11	(C)
Q2	(D)	Q12	(B)
Q3	(A)	Q13	(D)
Q4	(E)	Q14	(A)
Q5	(A)	Q15	(D)
Q6	(B)	Q16	(D)
Q7	(E)	Q17	(C)
Q8	(E)	Q18	(A)
Q9	(D)	Q19	(C)
Q10	(C)	Q20	(B)

Answer Key

Level-2

Q1	(C)	Q11	(B)
Q2	(E)	Q12	(E)
Q3	(A)	Q13	(B)
Q4	(D)	Q14	(C)
Q5	(E)	Q15	(C)
Q6	(D)	Q16	(D)
Q7	(C)	Q17	(C)
Q8	(E)	Q18	(E)
Q9	(B)	Q19	(C)
Q10	(A)	Q20	(C)

Answer Key

Level-3

Q1	(D)	Q6	(C)
Q2	(C)	Q7	(D)
Q3	(E)	Q8	(A)
Q4	(E)	Q9	(A)
Q5	(B)	Q10	(A)

Hints & Solutions

Level-1

Q1 Text Solution:

Pattern of the series is as follows:

5(≠6) + 7 = 12

12 + 9 = 21

21 + 11 = 32

32 + 13 = 45

45 + 15 = 60

Wrong term = 6

Q2 Text Solution:

Pattern of the series is as follows:

Pattern Given

6 + 1 = 7

7 + 2 = 9

9 + 4 = 13

13 + 8 = 21≠ 26

21 + 16 = 37

37 + 32 = 69

Wrong term = 26

Q3 Text Solution:

There are two series,

29 - 8 = 21

21 - 8 = 13

13 - 8 = 5

And 37 + 8 = 45 ≠ 43

45 + 8 = 53

Wrong term = 43

Q4 Text Solution:

The pattern of the series is as follows:

644 - 320 = 324 ≠ 328

324 - 160 = 164

164 - 80 = 84

84 - 40 = 44

44 - 20 = 24

24 - 10 = 14

Here, 320 ÷ 2 = 160 ÷ 2 = 80 ÷ 2 = 40 ÷ 2 = 20 ÷ 2 = 10

Wrong term = 328

Q5 Text Solution:

Pattern of the series is as follows:

7.5 + 30 = 37.5 ≠ 47.5

37.5 + 50 = 87.5

87.5 + 70 = 157.5

157.5 + 90 = 247.5

Wrong term = 47.5

Q6 Text Solution:

Pattern of the series is as follows:

4 + 1.1 = 5.1

5.1 + 2.2 = 7.3

7.3 + 3.3 = 10.6

10.6 + 4.4 = 15

15 + 5.5 = 20.5 ≠ 20

20.5 + 6.6 = 27.1

Wrong term = 20

Q7 Text Solution:

Pattern of the series is as follows:

4	10	40	190	940	4690≠4680	23440
	+6	+30	+150	+750	+3750	+18750
		×5	x5	x5	x5	x5

Wrong term = 4680

Q8 Text Solution:

Pattern of the series is as follows:

$38 + 1^2 = 39$

$39 + 2^2 = 43$

$43 + 3^2 = 52$

$52 + 4^2 = 68 \neq 70$

$68 + 5^2 = 93$

$93 + 6^2 = 129$

Wrong term = 70

Q9 Text Solution:

Pattern of the series is as follows :

61 + 21 x 1 = 82

82 + 21 x 2 = 124

124 + 21 x 3 = 187

187 + 21 x 4 = 271 ≠ 270

271 + 21 x 5 = 376

Wrong term = 270

Q10 Text Solution:

Pattern of the series is as follows:

Pattern Given

13

13 + 3 = 16

16 + 5 = 21

21 + 7 = 28

28 + 11 = 39

39 + 13 = 52

Wrong term = 27

Q11 Text Solution:

Pattern of the series is as follows :

289 + 17 x 1 = 306

306 + 17 x 2 = 340

340 + 17 x 3 = 391≠389

391 + 17 x 4 = 459

459 + 17 x 5 = 544

Wrong term = 389

Q12 Text Solution:

Pattern of the series is as follows:141 + 15 = 156

156 - 9 = 147

147 + 15 = 162

162 - 9 = 153

153 + 15 = 168 ≠ 165

168 - 9 = 159

Wrong term = 165

Q13 Text Solution:

There are two series,

14 + 15 = 29

29 + 15 = 44

44 + 15 = 59

And 19 + 21 = 40

40 + 21 = 61 ≠ 51

61 + 21 = 82

Wrong term = 51

Q14 Text Solution:

Pattern of the series is as follows:

Pattern Given

11

11 + 7 = 18

18 + 11 = 29

29 + 13 = 42

42 + 17 = 59

59 + 19 = 78

78 + 23 = 101

Wrong term = 80

Q15 Text Solution:

201 – (5×1) = 196

196 – (5×3) = 181

181 – (5×5) = 156

156 – (5×7) = 121

121 – (5×9) = 76

76 – (5×11) = 21

Q16 Text Solution:

The pattern of the series is as follows:

0.5 x 1 = 0.5 ≠ 2

0.5 x 2 = 1

1 x 4 = 4

4 x 8 = 32

32 x 16 = 512

512 x 32 = 16384

Wrong term = 2

Q17 Text Solution:

The pattern of the series is as follows:

Pattern Given

16

16 x $\frac{3}{2}$ = 24

24 x $\frac{3}{2}$ = 36 not 37

36 x $\frac{3}{2}$ = 54

54 x $\frac{3}{2}$ = 81

81 x $\frac{3}{2}$ = 121.5

Hence, Wrong number = 37

Q18 Text Solution:

Pattern of the series is as follows:

Pattern Given

2

2 x 1.5 = 3

3 x 2 = 6

6 x 2.5 = 15

15 x 3 = 45

45 x 3.5 = **157.5**

157.5 x 4 = 630

Wrong term = 156.5

Q19 Text Solution:

Pattern of the series is as follows:

4 x 1 + 1 = 5

5 x 2 + 2 = 12

12 x 3 + 3 = 39$\neq 38$

39 x 4 + 4 = 160

160 x 5 + 5 = 805

805 x 6 + 6 = 4836

Wrong term = 38

Q20 Text Solution:

The order of the series is as follows,

$14.2 + 2.1 = 16.3$

$16.3 - 4.2 = 12.1$

$12.1 + 6.3 = 18.4$

$18.4 - 8.4 = 10 \neq 10.6$

$10 + 10.5 = 20.5$

गलत क्रम $= 10.6$

Hints & Solutions

Level-2

Q1 Text Solution:

Pattern is given below:

80 ÷ 2 + 2 = 42

42 ÷ 2 + 2 = 23 $\neq$ 24

23 ÷ 2 + 2 = 13.5

13.5 ÷ 2 + 2 = 8.75

8.75 ÷ 2 + 2 = 6.375

Wrong number = 24

Q2 Text Solution:

Pattern of the series is as follows :

7 x 1 + 1 = 8

8 x 2 + 2 = 18

18 x 3 + 3 = 57

57 x 4 + 4 = 232 $\neq$ 230

232 x 5 + 5 = 1165

Wrong term = 230

Q3 Text Solution:

Pattern of the series is as follows :

20 x 2 - 2 = 38

38 x 2 - 2 = 74

74 x 2 - 2 = 146 $\neq$ 148

146 x 2 - 2 = 290

290 x 2 - 2 = 578

Wrong term = 148

Q4 Text Solution:

Pattern of the series is as follows:

Pattern Given

3

3 x 2.5 = 7.5

7.5 x 2 = 15

15 x 2.5 = 37.5

37.5 x 2 = 75$\neq$ 76

75 x 2.5 = 187.5

187.5 x 2 = 375

Wrong term = 76

Q5 Text Solution:

Pattern of the series is as follows:

Pattern Given

3

$3 + 2^2 = 7$

$7 + 3^2 = 16$

$16 + 4^2 = 32$

$32 + 5^2 = 57$

$57 + 6^2 = 93$

$93 + 7^2 = 142$

Wrong number = 56

Q6 Text Solution:

Pattern of the series is as follows:

$251 - 1^3 = 250 \neq 252$

$250 + 2^2 = 254$

$254 - 3^3 = 227$

$227 + 4^2 = 243$

Wrong term = 252

Q7 Text Solution:

The pattern of the series is as follows:

2 + 3 = 5 $\neq$ 6

5 + 5 = 10

10 + 9 = 19

19 + 17 = 36

36 + 33 = 69

69 + 65 = 134

Here, 3 x 2 - 1 = 5

5 x 2 - 1 = 9

9 x 2 - 1 = 17

17 x 2 - 1 = 33

33 x 2 - 1 = 65

Wrong term = 6

Q8 Text Solution:

Pattern of the series is as follows:

2 ×2 - 1 = 3

3 ×3 - 1 = 8

8 ×4 - 1 = 31

31 × 5 - 1 = 154

154 × 6 - 1 = 923 $\neq$ 924

Wrong number = 924

Q9 Text Solution:

Pattern of the series is as follows:

2 x 3 + 5 = 11

11 x 4 - 6 = 38

38 x 5 + 7 = 197

197 x 6 - 8 = 1174 $\neq 1172$

Wrong term = 1172

Q10 Text Solution:

Pattern of the series is as follows:

Pattern Given

1 x 1 + 2 = 3

3 x 2 + 3 = 9

9 x 3 + 4 = 31

31 x 4 + 5 = 129

129 x 5 + 6 = 651

651 x 6 + 7 = 3913

Wrong term = 128

Q11 Text Solution:

7 × 3 + 6 = 27 27

27 × 3 + 12 = 93

93 × 3 + 18 = **297**

297 × 3 + 24 = 915

915 × 3 + 30 = 2775

2775 × 3 + 36 = 8361

Q12 Text Solution:

Pattern of the series is as follows:

Pattern Given

11^3 = 1331

13^3 = 2197

15^3 = 3375

17^3 = 4913

19^3 = 6859

21^3 = 9261

23^3 = 12167

Wrong term = 4914

Q13 Text Solution:

Pattern of the series is as follows:

Pattern Given

1 x 1 + 2 = 3

3 x 2 + 4 = 10

10 x 3 + 6 = 36

36 x 4 + 8 = 152

152 x 5 + 10 = 770

770 x 6 + 12 = 4632

Wrong term = 760

Q14 Text Solution:

Pattern of the series is as follows:

1^3 + 1 = 2

2^3 + 1 = 9

3^3 + 1 = 28

4^3 + 1 = 65

5^3 + 1 = 126

6^3 + 1 = 217 $\neq 216$

7^3 + 1 = 344

Wrong term = 216

Q15 Text Solution:

5 × 0 + 5 = 5

5 × 2 + 5 = 15

15 × 4 + 5 = 65

65 × 6 + 5 = 395

395 × 8 + 5 = 3165

Therefore, 15 should come in place of 10

Therefore,

10 × 0 + 5 = 5

5 × 2 + 5 = 15

15 × 4 + 5 = 65

Hence, option C.

Q16 Text Solution:

Logic in the series:

13^2 - 1 = 168

11^2 - 1 = **120(108)**

7^2 - 1 = 48

5^2 - 1 = 24

3^2 - 1 = 8

2^2 - 1 = 3

So, the value of P = 108

And the number, which will come in place of P = 120

Required percentage = $\frac{108}{120} \times 100$ = 90%

Q17 Text Solution:

Logic in the series:

3 × 3 + 1 = 10

10 × 3 + 2 = **32(34)**

32 × 3 + 3 = 99

99 × 3 + 4 = 301

301 × 3 + 5 = 908

The number, which will come in place of P = 32

Required difference = 30% of 32 = 9.6

Q18 Text Solution:

Logic in series (I):

$6 + 4^2$ = **22(20)**

$22 + 5^2 = 47$

$47 + 6^2 = 83$

$83 + 7^2 = 132$

$132 + 8^2 = 196$

So, wrong term in the series = P = 20

Logic in series (II):

$11 + 2 \times 2 = 15$

$15 + 3 \times 2$ = **21(20)**

$21 + 5 \times 2 = 31$

$31 + 7 \times 2 = 45$

$45 + 11 \times 2 = 67$

So, wrong term in the series = Q = 20

Required percentage = $\frac{20}{20} \times 100 = 100\%$

Q19 Text Solution:

Logic in the given series:

$25 + 10 = 35$

$35 - 15 = 20$

$20 + 20 = 40$

$40 - 25 = 15$

$15 + 30$ = **45(55)**

So, the wrong term in the given series = 55

Now,

1st term of the new series = 55

2nd term of the new series = 55 + 10 = 65

3rd term of the new series = 65 - 15 = 50

4th term of the new series = 50 + 20 = 70

5th term of the new series = 70 - 25 = 45

So, the 5th term of the new series will be equal to the 6th term of the given series, which will come in place of the wrong term.

Q20 Text Solution:

Logic in the series:

$30 + 5^2 + 55$

$55 + 7^2 + 104$

$104 + 11^2$ = **225(250)**

$225 + 13^2 = 394$

$394 + 17^2 = 683$

The value of P = 250

And the number, which will come in place of P = 225

Required percentage = $\frac{225}{250} \times 100 = 90\%$

Hints & Solutions

Level-3

Q1 Text Solution:

325 546 754 936 **1079** 1170

+221 +208 +182 +143 +91

-13 -26 -39 -52

Ans. 1078

Q2 Text Solution:

Logic in the given series:

4 + 2 = 6

6 + 6 = **12(15)**

12 + 18 = 30

30 + 54 = 84

84 + 162 = 246

So, the wrong term of the series = P = 15

Now,

1st term of the new series = 15

2nd term of the new series = 15 + 1 = 16

3rd term of the new series = 16 + 3 = 19

4th term of the new series = 19 + 9 = 28

5th term of the new series = 28 + 27 = 55

6th term of the new series = 55 + 81 = 136

Q3 Text Solution:

Pattern of the series is as follows:

Pattern Given

12

12 x 0.5 + 0.5 = 6.5 not 6

6.5 x 1 + 1 = 7.5

7.5 x 1.5 + 1.5 = 12.75

12.75 x 2 + 2 = 27.5

27.5 x 2.5 + 2.5 = 71.25

Wrong term = 6

Q4 Text Solution:

$\frac{115}{2}$ + 1.5 = 59

$\frac{59}{2}$ + 3.5 = 33

$\frac{33}{2}$ + 5.5 = 22

$\frac{22}{2}$ + 7.5 = 18.5

$\frac{18.5}{2}$ + 9.5 = **18.75**

$\frac{18.75}{2}$ + 11.5 = 20.875

Therefore, 18.75 should be in place of 16.

Q5. Text Solution:

I. 1999, 1787, 1582, 1391, 1228, 1079

1999 - 212 = 1787

1787 - 205 = 1582

1582 -191 = 1391

1391 - 170 = 1221

1221 - 142= 1079

Where, 212 - 7 =205, 205 - 14 = 191, 191 - 21 = 170, 170 - 28 = 142

The correct series is 1221 in place of 1228.

II. 212, 213, 230, 365, 608, 1939

$212 + 1^3 = 213$

$213 + 3^3 = 240$

$240 + 5^3 = 365$

$365 + 7^3 = 608$

$608 + 11^3 = 1939$

The correct series is 240 instead of 230.

III. 128, 192, 480, R, 7560

$128 \times 1.5 = 192$

$192 \times 2.5 = 480$

$480 \times 3.5 = 1680$

$1680 \times 4.5 = 7560$

Required ratio = P: Q = 1228: 230 = 614: 115

Q6. Text Solution:

I. 1999, 1787, 1582, 1391, 1228, 1079

1999 - 212 = 1787

1787 - 205 = 1582

1582 -191 = 1391

1391 - 170 = 1221

1221 - 142= 1079

Where, 212 - 7 =205, 205 - 14 = 191, 191 - 21 = 170, 170 - 28 = 142

The correct series is 1221 in place of 1228.

II. 212, 213, 230, 365, 608, 1939

$212 + 1^3 = 213$

$213 + 3^3 = 240$

$240 + 5^3 = 365$

$365 + 7^3 = 608$

$608 + 11^3 = 1939$

The correct series is 240 instead of 230.

III. 128, 192, 480, R, 7560

$128 \times 1.5 = 192$
$192 \times 2.5 = 480$
$480 \times 3.5 = 1680$
$1680 \times 4.5 = 7560$
Q + R = 1228 + 1680 = 2908

Q7. Text Solution:

I. 1999, 1787, 1582, 1391, 1228, 1079

1999 - 212 = 1787

1787 - 205 = 1582

1582 -191 = 1391

1391 - 170 = 1221

1221 - 142= 1079

Where, 212 - 7 =205, 205 - 14 = 191, 191 - 21 = 170, 170 - 28 = 142

The correct series is 1221 in place of 1228.

II. 212, 213, 230, 365, 608, 1939

$212 + 1^3 = 213$
$213 + 3^3 = 240$
$240 + 5^3 = 365$
$365 + 7^3 = 608$
$608 + 11^3 = 1939$

The correct series is 240 instead of 230.

III. 128, 192, 480, R, 7560

$128 \times 1.5 = 192$
$192 \times 2.5 = 480$
$480 \times 3.5 = 1680$
$1680 \times 4.5 = 7560$

IV.

$24 \times 1.5 = 36$
$36 \times 2.5 = 90$
$90 \times 3.5 = 315$

Serise is 24, 36, 90, 315

Required sum = 480 + 90 = 570

Q8 Text Solution:

Logic in the series:

53 + 15 = 68

68 + 30 = 98

98 + 45 = 143

143 + 60 = **203(201)**

203 + 75 = 278

So, the wrong term of the series = 201

And the next term of the series = 278 + 90 = 368

Required difference = 368 - 201 = 167

Q9 Text Solution:

Logic in the given series:

48 - 2^2 = 44

44 + 3^2 = 53

53 - 4^2 = **37(35)**

37 + 5^2 = 62

62 - 6^2 = 26

So, the wrong term of the given series = P = 35

Now,

1st term of the new series = 35

2nd term of the new series = 35 - 2^2 = 31

3rd term of the new series = 31 + 3^2 = 40

4th term of the new series = 40 - 4^2 = 24

Q10 Text Solution:

Logic in the series:

12 + 12 = 24

24 + 20 = 44

44 + 28 = **72**

72 + 36 = 108

108 + 44 = 152

So, the wrong term in the series = P = 80

And the number, which will come in place of P = 72

Required percentage = $\frac{72}{80} \times 100$ = 90%