Direction (1-5) : What value should come in place of question mark (?) in the following number series?

1. 22, 42, 64, 88, ?

1. 112
2. 118
3. 116
4. 114
5. 115

2. 11, 61, 299, 1189, ?

1. 3559
2. 3659
3. 3569
4. 3549
5. 3459

3. 215, 19, 163, 63, ?

1. 117
2. 127
3. 125
4. 126
5. 109

4. 160, 80, 120, 300, ?

1. 1050
2. 1000
3. 1040
4. 1020
5. 1060

5. 4, 5, 8, 15, ?

1. 25
2. 26
3. 28
4. 31
5. 24

6. 19, 27, 0 , 64, ? , 155

1. 61
2. 83
3. -23
4. 47
5. Other than the given options

7. 122, 62, 32, ?, 9.5, 5.75

1. 19
2. 24
3. 17
4. 20.25
5. Other than the given options

8. 49, 216 , 625 , 1024 , 729 , ?

1. 128
2. 512
3. 256
4. 324
5. Other than the given options

9. 71 , ? , 868, 4345, 26076

1. 322
2. 264
3. 198
4. 216
5. Other than the given options

10. 1 , 12 , 144 , 1728 , ?

1. 18024

2. 9962

3. 20736

4. 21302

5. Other than the given options

Directions (11-15): What should come in place of the question mark (?) in the following number series?

11. 8, 4.5 , 5.5 , 13 , 56 , ?

a) 566

b) 496

c) 596

d) 450

e) 456

12. 19 , 16 , 44 , 107 , ?

a) 108

b) 156

c) 215

d) 151

e) 251

13. 11 , 14 , 23 , 50, ?

a) 111

b) 121

c) 151

d) 131

e) 141

14. 19 , 25 , 42 ,71 , 113 , ?

a) 169

b) 153

c) 186

d) 196

e) 269

15. 21 , 35 , 30 , 44 , 39 ,?

a) 59

b) 53

c) 55

d) 45

e) 46

Directions (16-20): What should come in place of the question mark (?) in the following number series?

16. 7 , 14 , 30, 56 , 93 , ?

a) 142

b) 403

c) 124

d) 96

e) 124

17. 23 , 39 , 32, 48 , 41 , ?

a) 58

b) 57

c) 59

d) 48

e) 84

18. 11, 13 , 20 , 48 , 111 , ?

a) 237

b) 125

c) 273

d) 255

e) 555

19. 13 , 17 , 33 , 97 , ? , 1377

a) 259
b) 563
c) 535
d) 455
e) 353

20. 6 , 3.5 , 4.5 , 11 , 48 , ?
a) 96
b) 56
c) 392
d) 192
e) 292

Directions (21-25): What should come in place of the question mark (?) in the following number series?

21. 6, 16, 45 ,184 , 917 , ?
a) 5056
b) 5506
c) 5006
d) 5060
e) 6050

22. 11, 20, 38, 74, ?
a) 85
b) 96
c) 100
d) 136
e) 146

23. 15, 21 , 38 , 65 , 101 , ?
a) 150
b) 120
c) 125
d) 145
e) 154

24. 24, 28 , 19 , 35 , 10 , ?
a) 45
b) 44
c) 46
d) 42
e) 47

25. 14 , 6 , 4 , 4, 8 , ?
a) 32
b) 8
c) 4
d) 16
e) 14

Directions (26-30): What should come in place of the question mark (?) in the following number series?

26. 14, 25, 47, 91, ?, 355
a) 100
b) 197
c) 179
d) 335
e) 155

27. 11, 24, 44, 70, 101, ?
a) 136
b) 102
c) 80
d) 102
e) 163

28. 18, 8, 6, 8, 24, ?

a) 6

b) 48

c) 24

d) 176

e) 167

29. 28, 32, 23, 39, 14, ?

a) 30

b) 50

c) 55

d) 6

e) 14

30. 5, 12, 33, 136, 675, ?

a) 5569

b) 4426

c) 5046

d) 4065

e) 4056

Directions (31 - 33): Complete the following series.

31. 2, 4, 12, 4, 240, ?

a) 960

b) 1440

c) 1080

d) 1920

e) None of these

32. 2, 5, 9, 19, 37, ?

a) 76

b) 74

c) 75

d) 73

e) None of these

33. 4, -8, 16, -32, 64, ?

a) 128

b) -128

c) 192

d) -192

e) None of these

Directions (34 -3 5): Find the wrong term in the following given series.

34. 2, 9, 28, 65, 126, 216, 344

a) 2

b) 28

c) 65

d) 126

e) 216

35. 10, 26, 74, 218, 654, 1946, 5834

a) 26

b) 74

c) 218

d) 654

e) 1946

Directions (36-40): What will come in place of question mark (?) in the following number series?

36. 59.76, 58.66, 56.46, 52.06, ?, 25.66

a) 48.08

b) 46.53

c) 43.46

d) 43.26

e) None of these

37. 36, 157, 301, 470, ?, 891

a) 646

b) 695

c) 639

d) 669

e) None of these

38. 14, 70, 350, ?, 8750, 43750

a) 1570

b) 875

c) 1750

d) 785

e) None of these

39. 13, 13, 65, 585, 7605, 129285,?

a) 2456415

b) 2235675

c) 2980565

d) 2714985

e) 2197845

40. 1, 16, 81, 256, 625, 1296, ?

a) 4096

b) 2401

c) 1764

d) 3136

e) 6561

Directions (41-45): What will come in place of question mark (?) in the following number series?

41. 1, 7, 49, 343, (?)

a) 16807

b) 1227

c) 2058

d) 2401

e) None of these

42. 13, 20, 39, 78, 145, (?)

a) 234

b) 244

c) 236

d) 248

e) None of these

43. 12, 35 , 81 , 173 , 357 , (?)

a) 725

b) 715

c) 726

d) 736

e) None of these

44. 3, 100, 297, 594, 991, (?)

a) 1489

b) 1479

c) 1478

d) 1498

e) None of these

45. 112, 119, 140, 175, 224, (?)

a) 277

b) 276

c) 287

d) 266

e) None of these

Directions (46 -50): In the following number series only one number is wrong. Find out the wrong number.

46. 18.3, 20.6 , 16, 22.9 , 13.7, 2.2, 11.4

a) 25.2
b) 18.3
c) 13.7
d) 22.9
e) 20.6

47. 9 , 5 , 6 , 10.5 , 23 , 61, 183

a) 183
b) 10.5
c) 61
d) 5
e) 9

48. 188, 154, 140, 132 ,128, 126 , 125

a) 125
b) 154
c) 132
d) 126
e) 188

49. 2, 4 , 11 , 37 , 151 , 771 , 4633

a) 11
b) 4633
c) 771
d) 151
e) 2

50. 391 , 394 , 399 , 411 , 431 , 461, 503

a) 503
b) 394
c) 399
d) 431
e) 391

Directions (51-55): What should come in place of the question mark (?) in the following number series?

51. 150, 102, 70 , 46 , 26 , ?

a) 16
b) 8
c) 10
d) 2
e) 4

52. 10 , 14 , 28 , 52 , 134 , ?

a) 302
b) 268
c) 300
d) 304
e) 208

53. 4500 , 900 , 90 , 6 , ? , 0.012

a) 0.3
b) 3
c) 3.33
d) 0.33
e) 3.3

54. 24 , 11 , 10 , 14 , 27 , ?

a) 66
b) 70.5
c) 68
d) 66.5

e) 68.5

55. 8 , 7 , 12 , 33 , 128 , ?

a) 528

b) 365

c) 653

d) 825

e) 635

Directions (56-60): What should come in place of the question mark (?) in the following number series?

56. 7 , 5 , 7 ,17 , 63 ?

a) 308

b) 302

c) 309

d) 409

e) 390

57. 50 , ? , 61 , 89, 154 , 280

a) 52

b) 51

c) 60

d) 62

e) 60

58. 17 , 19 , 25 , 37 , ? , 87

a) 47

b) 37

c) 57

d) 67

e) 75

59. 11 , 14 ,19 , 28, 43, ?

a) 55

b) 44

c) 77

d) 88

e) 66

60. 26 , 144 , 590 , 1164 , ?

a) 1296

b) 1182

c) 2059

d) 1182

e) 1181

Direction (61-65) Find the wrong number in the following series.

61. 40, ,326, 2946 ,29418, 323607

1.326

2.40

3.2946

4.323607

5.29418

62. 560 , 1089 , 1725 , 2443, 3284 , 4245

1.2443

2.1725

3.4245

4.3284

5.560

63. 3252 , 3080 , 2958 , 2876 , 2826

1.3080

2.2876

3.2826

4.3252

5.2958

64. 2442 , 1222 , 614 , 312 ,163 , 90 , 55.75

1.1222

2.312

3.90

4.614

5.163

65. 1250, 1322 , 1452, 1674, 2024 , 2544

1.1322

2.1674

3.2544

4.2024

5.1250

Direction (66-70) Find the missing number in the given series.

66. 1953.125 781.25 312.5 ? 20

1.48

2.49

3.50

4.51

5.52

67. 81 87 162 504 1992 9990 ?

1.59903

2.59906

3.56895

4.59904

5.59861

68. 49 72 118 ? 394 762 1498

1.234

2.239

3.210

4.219

5.243

69. 142 143 156 193 272 417 ?

1.653

2.658

3.659

4.657

5.656

70. 118 122 158 206 356 536 ?

1.956

2.953

3.928

4.965

5.963

71. 2, 8, 14, 24, 34, 48, ?

a. 66

b. 62

c. 58

d. 64

72. 1, 2, 3, 2, 4, 5, 4, 5, ?

a. 9

b. 6

c. 10

d. 7

73. 3, 8, 13, 24, 41, ?

a. 65

b. 75

c. 70

d. 80

74. 2, 4, 4, 8, 16, 16, 256,?

a. 64

b. 36

c. 180

d. 32

75. 1, 2, 3, 5, 8, ?

a. 11

b. 13

c. 15

d. 9

76. 138, 115, 92, 69, 46, ?

a. 9

b. 18

c. 21

d. 23

77. 4, 2, 8, 16, 128, ?

a. 562

b. 1018

c. 2024

d. 2048

78. 186, 115, 71, 44, 27, ?

a. 19

b. 17

c. 13

d. 21

79. 128, 64, 32, 16, ?, 4

a. 10

b. 8

c. 6

d. 12

d. 27

80. 1, 1, 2, 8, 64, ?, 65536

a. 1024

b. 2556

c. 4096

d. 1088

81. 1, 2, 4, 8, 16, 32, ?

a. 48

b. 56

c. 64

d. 70

82. 5, 50, 45, 450, 445, ?, 4445

a. 4450

b. 4600

c. 4550

d. 4500

83. 243, 5, 81, 15, 27, 45, 9, ?

a. 5

b. 15

c. 135

d. 27

84. 1, 2, 2, 5, 3, 10, ?

a. 8

b. 4

c. 7

d. 11

85. 4, -8, 14, -22, 32, ?

a. -44

b. 42

c. -42

d. 44

Answer:

1. 4;

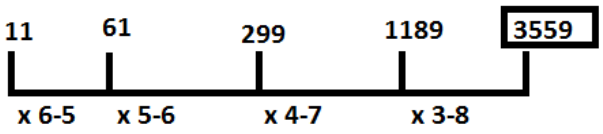
The series is $3^2 + 13 = 22, 4^2 + 26 = 42,$

$5^2 + 39 = 64, 6^2 + 52 = 88$

$? = 7^2 + 65 = 114$

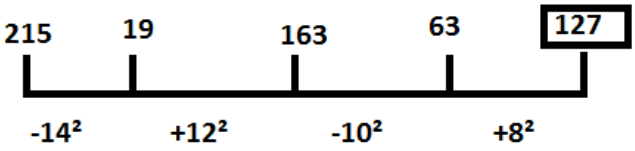
2. 1;

The series is

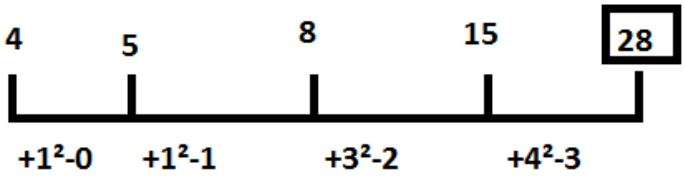


3. 2;

The series is

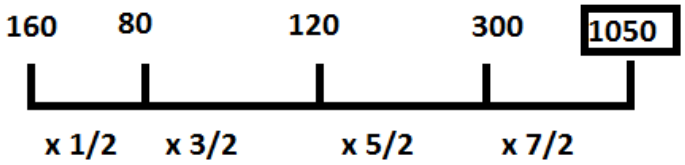


The series is



4. 1;

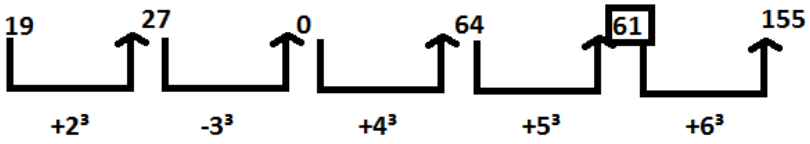
The series is



5. 3;

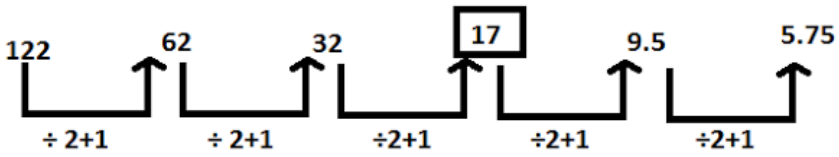
6. 5;

The series is



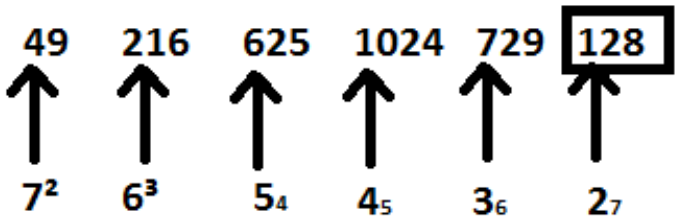
7. 3;

The series is



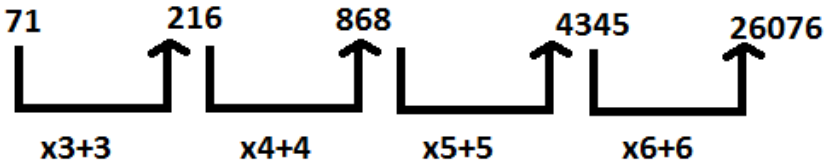
8. 1;

The series is



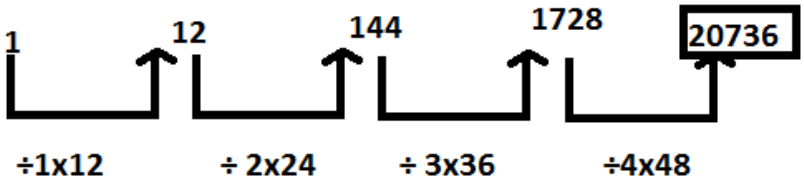
9. 4;

The series is



10. 3;

The series is



11. e) 456

Solution:

8 x 0.5 + 0.5 = 4.5

4.5 x 1 + 1 = 5.5

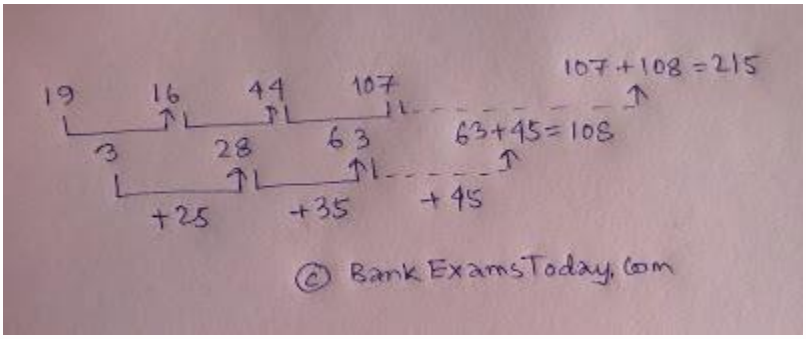
5.5 x 2 + 2 = 13

13 x 4 + 4 = 56

56 x 8 + 8 = 456

12. c) 215

Solution:



13. d) 131

Solution:

$11 + 3^1 = 11 + 3 = 14$

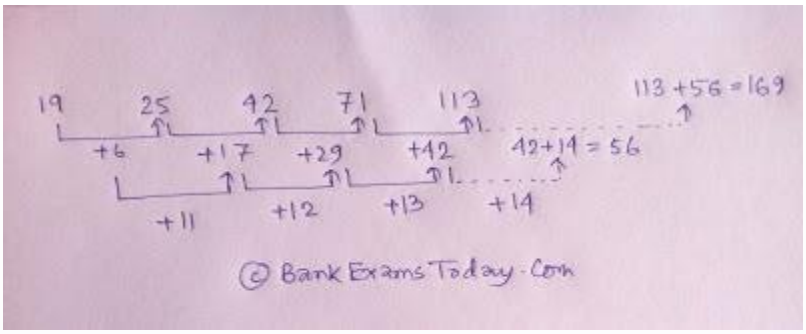
$14 + 3^2 = 14 + 9 = 23$

$23 + 3^3 = 23 + 27 = 50$

$50 + 3^4 = 50 + 81 = 131$

14. a) 169

Solution:



15. b) 53

Solution:

21 + 14 = 35

35 – 5 = 30

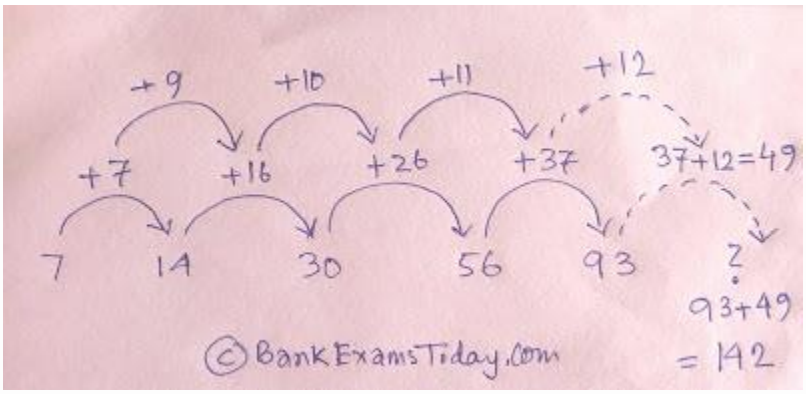
30 + 14 = 44

44 – 5 = 39

39 + 14 = 53

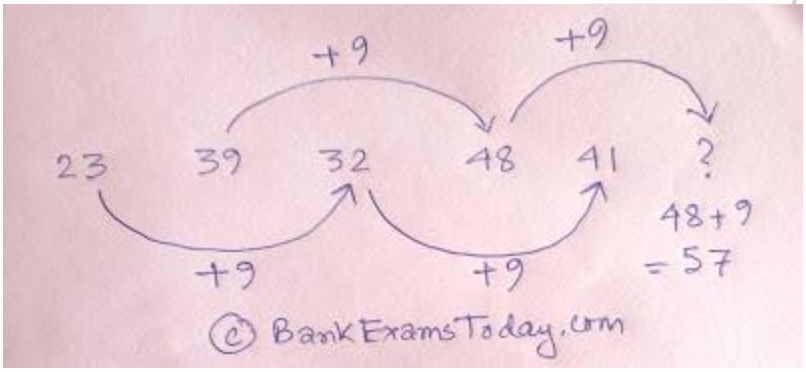
16. a) 142

Solution:



17. b) 57

Solution:



18. a) 237

Solution:

$11 + (1^3 + 1) = 11 + 3 = 13$

$13 + (2^3 - 1) = 13 + 7 = 20$

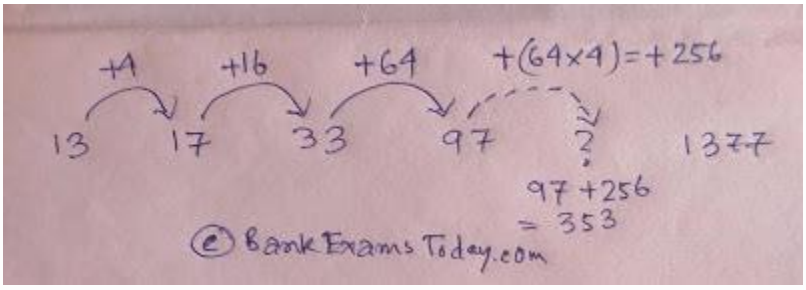
$20 + (3^3 + 1) = 20 + 28 = 48$

$48 + (4^3 - 1) = 48 + 63 = 111$

$111 + (5^3 + 1) = 111 + 126 = 237$

19. e) 353

Solution:



20. c) 392

Solution:

6 x 0.5 + 0.5 = 3.5

3.5 x 1 + 1 = 4.5

4.5 x 2 + 2 = 11

11 x 4 + 4 = 48

48 x 8 + 8 = 392

21. b) 5506

Solution:

6 x 2 + 4 = 16

16 x 3 - 3 = 45

45 x 4 + 4 = 184

184 x 5 - 5 = 917

917 x 6 - 6 = 5506

22. e) 146

Solution:

11 + 9 = 20

20 + 18 = 38

38 + 36 = 74

74 + 72 = 146

23. d) 145

Solution:

15 + 6 = 21

21 + 17 = 38 (17 = 6+11)

38 + 27 = 65 (27 = 17+10)

65 + 36 = 101 (36 = 27 + 9)

101 + 44 = 145 (44 = 36 + 8)

24. c) 46

Solution:

$24 + 2^2 = 24 + 4 = 28$

$28 - 3^2 = 28 - 9 = 19$

$19 + 4^2 = 19 + 16 = 35$

$35 - 5^2 = 35 - 25 = 10$

$10 + 6^2 = 10 + 36 = 46$

25. a) 32

Solution:

14 x 1 - 8 = 6

6 x 2 - 8 = 4

4 x 3 - 8 = 4

4 x 4 - 8 = 8

8 x 5 - 8 = 32

26. c) 179

Solution:

14, 25, 47, 91, ?, 355

14 x 2 - 3 = 25

25 x 2 - 3 = 47

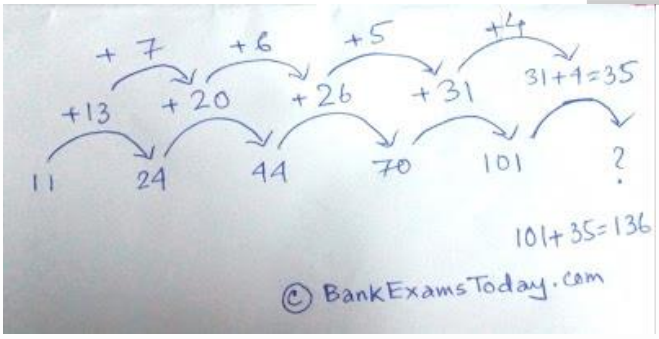
47 x 2 - 3 = 91

91 x 2 - 3 = 179

27. a) 136

Solution:

11, 24, 44, 70, 101, ?



28. d) 176

Solution:

18, 8, 6, 8, 24,?

18 x 0.5- 1 = 8

8 x 1- 2 = 6

6 x 2 - 4 = 8

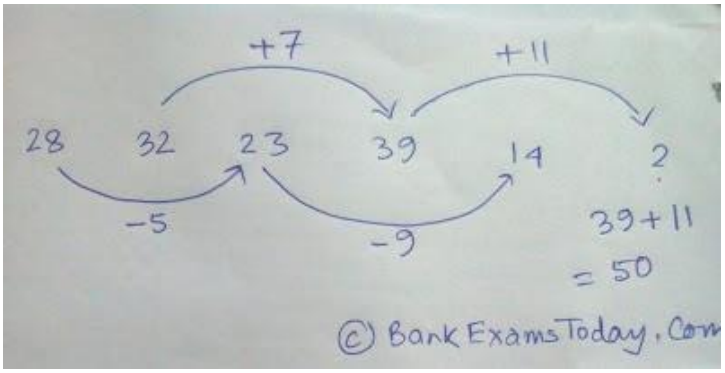
8 x 4 - 8 = 24

24 x 8 - 16 = 176

29. b) 50

Solution:

28, 32, 23, 39, 14, ?



30. e) 4056

Solution:

5, 12, 33, 136, 675, ?

5 x 2 + 2 = 12

12 x 3 - 3 = 33

33 x 4 + 4 = 136

136 x 5 - 5 = 675

675 x 6 + 6 = 4056

31. a) 2, 4, 12, 48, 240, ….

The pattern is: to arrive at a term, the previous term is being multiplied by (n+1) where 'n' keeps on increasing by 1 for every term.

32.

4 = **2** × (2 + 0)

12 = **4** × (2 + 1)

48 = **12** × (2 + 2)

240 = **48** × (2 + 3)

⇒ Next term = **240** × (**2** + 4) = 240 × 6 = **1440**

2. c) 2, 5, 9, 19, 37, …..

The pattern is: every number is arrived at previous number multiplied by 2 and then alternate addition and subtraction by 1 i.e.

2

5=2×2+1

9=5×2-1

19=9×2+1

37=19×2-1

the next term **37**×2+1 = **75**

33. b) 4, -8, 16, -32, 64, ….

The pattern is: Every number is arrived at by multiplying previous alternate number with '4' as shown below:

4 x 4 = 16

-8 x 4 = -32

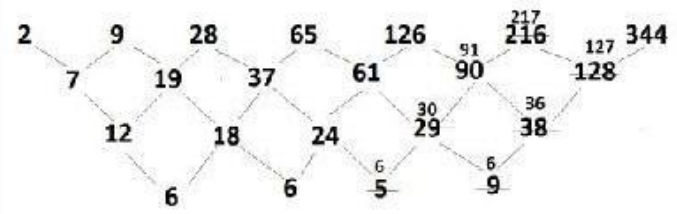
16 x 4 = 64

-32 x 4 = -128

Hence, '-128' is the correct answer.

34. e) 2, 9, 28, 65, 126, 216, 344.

The pattern in the series is that the series is triangular as shown below:



In the triangular series, the difference between consecutive terms is written below the numbers and then, difference between consecutive differences is written below & this process carries on until all the difference become equal. In the figure above there was an error & we have corrected it.

35. d) 10, 26, 74, 218, 654, 1946, 5834

The pattern is: to arrive at next term, the previous is multiplied by 3 and subtracted by 4:

10

10 × 3 – 4 = **26**

26 × 3 – 4 = **74**

74 × 3 – 4 = **218**

218 × 3 – 4 = **650** ≠ 654

650 × 3 – 4 = **1946**

1946 × 3 – 4 = **5834**

Here, '654' was wrong.

36. d) The series is - 1.1, - 2.2, - 4.4, - 8.8, - 17.6

37. e) The series is: + 11^2, + 12^2, + 13^2, + 14^2, + 15^2

38. c) The series is: x5, x5, x5 ……

39. d) The series is: x1, x5, x9, x13, x17, x21

40. b) The series is: 1^4, 2^4, 3^2, 4^2, 5^4, 6^4, 7^4 (= 2401)

41. d.) 2401

Solution:

1 x 7 = 7

7x 7 = 49

49 x 7 = 343

343 x 7 = 2401

42. d) 248

Solution:

$13+12^2+3$, $20+4^2+3$, $39+6^2+3$, $78+8^2+3$, $145+10^2+3$

43. a) 725

Solution:

difference x 2

44. e) none

Solution:

+97,+197+297,+397,+497

991+497 = 1488

45. c) 287

Solution:

+ 7x1, +7x3, +7x5, +7x7, +7x9

46. a) 25.2

18.3 + 2.3 = 20.6

20.6 - 4.6 = 16

16 + 6.9 = 22.9

22.9 - 9.2 = 13.7

13.7 +11.5 = 25.2

25.2 - 13.8 = 11.4

47. c) 61

9 x 0.5 + 0.5 = 5

5 x 1 + 1 = 6

6 x 1.5 + 1.5 = 10.5

10.5 x 2 + 2 = 23

23 x 2.5 + 2.5 = 60

60 x 3 + 3 = 183

48. e) 188

186 - 36 = 154

154 - 16 = 140

140 - 8 = 132

132 - 4 = 128

128 - 2 = 126

126 - 1 = 125

49. d) 151

2 x 1 + 2 = 4

4 x 2 + 3 = 11

11 x 3 + 4 = 37

37 x 4 + 5 = 153

153 x 5 + 6 = 771

771 x 6 + 7 = 4633

50. b) 394

391 + 2 = 393

393 + 6 = 399

399 + 12 = 441

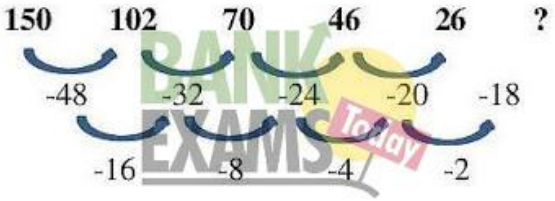
441+ 20 = 431

431 + 30 = 461

461 +40 = 503

51. b) 8

Solution:



Then ? = 26-18 = 8

52. d) 304

Solution:

10 x 3 - 2= 28

14 x 4 - 4= 52

28 x 5 - 6= 134

52 x 6- 8= 304

53. a) 0.3

Solution:

4500/5 = 900

900/10 = 90

90/15 = 6

6/20 = 0.3

0.3/25 = 0.012

54. d) 66.5

Solution:

24 x (1/2) – 1 = 11

11 x (2/2) – 1 = 10

10 x (3/2) – 1 = 14

14 x (4/2) – 1 = 27

27 x (5/2) – 1 = 66.5

55. e) 635

Solution:

8 x 1 – 1 = 7

7 x 2 – 2 = 12

12 x 3 – 3 = 33

33 x 4 – 4 = 128

128 x 5 – 5 = 635

56. c) 309

Solution:

7 x 1 – 2 = 5

5 x 2 – 3 = 7

7 x 3 – 4 = 17

17 x 4 – 5 = 63

63 x 5 – 6 = 309

57. a) 52

Solution:

50..50+(1^3+1) = 52

52+(2^3+1)=61.

61+(3^3+1)=89

89+(4^3+1)=154

154 + (5^3+1) = 280

58. c) 57

Solution:

17 + 1 x 2 = 19

19 + 2 x 3 = 25

25 + 3 x 4 = 37

37 + 4 x 5 = 57

57 + 5 x 6 = 87

59. e) 66

Solution:

3….5...9...15...23

…2....4....6....8…

Answer 43+23= 66

60. b) 1182

Solution:

26 x 6 – 12 = 144

144 x 4 + 14 = 590

590 x 2 – 16 = 1164

1164 x 1 + 18 = 1182

61.2946

40 x 8+6=326

326 x 9+7=294

2946 x 10+8=29418

29418 x 11+9=323607

62.1725

the difference between numbers is $+23^2$,$+25^2$, $+27^2$, $+29^2$ .....

63.3252

the difference between numbers is $-(13^2+1)$, $-(11^2+1)$, $-(9^2+1)$, $-(7^2+1)$, $-(5^2+1)$

64. 90

2442/2 + 1 = 1222

1222/2 + 3= 614

614/2 + 5 = 312

312/2 + 7 =163

163/2 + 9 = 89.5

89.5/2 + 11 = 55.75

65. 1250

the difference between numbers is $+(3^3+3)$, $+(4^3+4)$, $+(5^3+5)$, $+(6^3+6)$, $+(7^3+7)$, $+(8^3+8)$

66.50

1953.125/2.5=781.25

781.25/2.5=312.5

312.5/2.5=125

125/2.5=50

50/2.5=20

67.59904

the difference between numbers is x 1+6 , x 2-12, x 3+18 ,x 4-24 ,x 5+30 , x 6-36

68.210

the difference between numbers is +23 , +46 , +92 , +184 , +368 ,+736

69.658

the difference between numbers is $+1^3+0$, $+2^3+5$,$+3^3+10$, $+4^3+15$, $+5^3+20$,$+6^3+25$

70. 928

the difference between numbers is

$+2^3-2^2$

$+3^3-3^2$

$+4^3-4^2$

$+5^3-5^2$

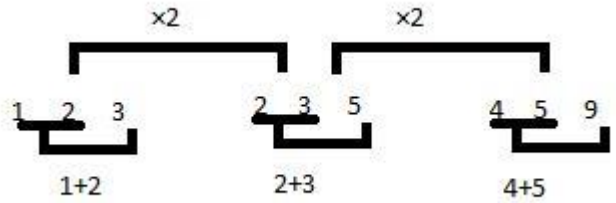
$+6^3-6^2$

$+7^3-7^2$

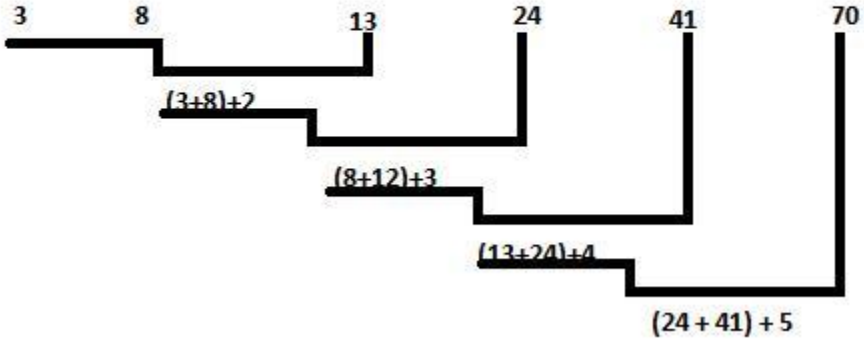
71. (b): The sequence in the series is:

The difference increases by 4 at alternate step.

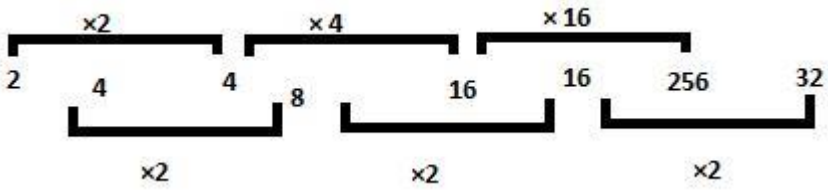
72. (a): In this series three numbers from a set. The first two numbers of each set are in natural order and the third number is the sum of first and second numbers. The first number of the next set begins with double the first number of the previous set.



73. (c): The sequence in the series is (number + next number) + addition of natural number increasing by 1 at each step, after beginning from 2.



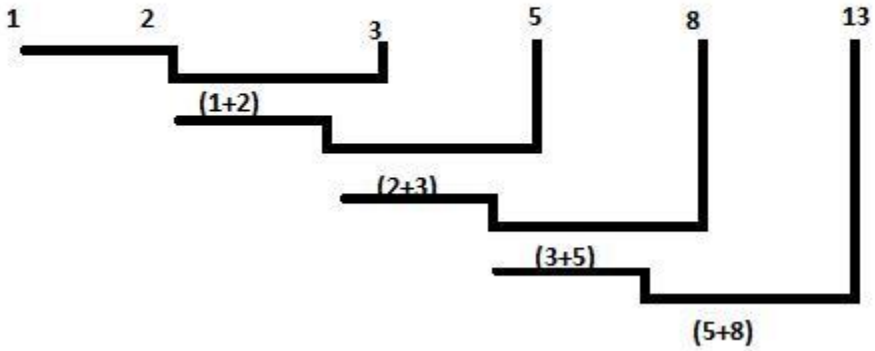
74. (d): There are two alternate series:



Series *I* : 2,4,16,256 (next number is the square of precious numbers)

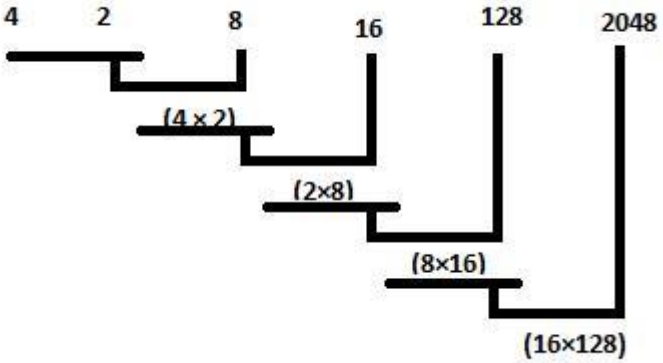
Series *II* : 4,8,16,32 (number is multiplied by 2 to get the next number)

75. (b): The numbers in the series are sum of two numbers preceding them.

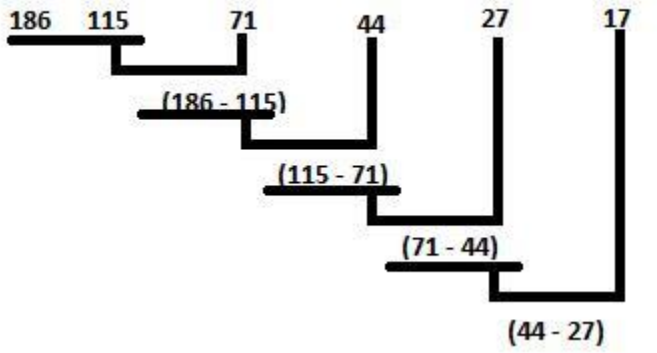


76. (d): The numbers in the series are decreasing by 23.

77. (d): The number in the series is product of two numbers preceding it.

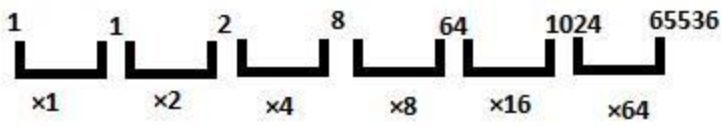


78. (b): The sequence in the series is that the number subtracted from its previous number gives the next number.



79. (b): The numbers in the series are divided by 2 at each step.

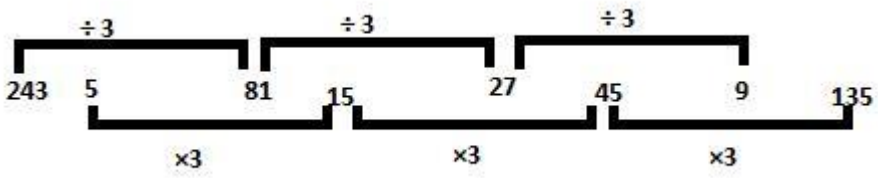
80. (a): The sequence in the series is ×1, ×2, ×4, ×8, ×16, ×64.



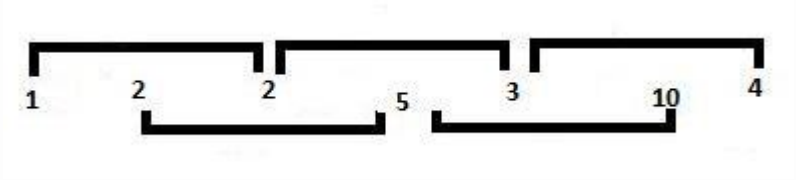
81. (c): The numbers in the series are double the previous number.

82. (a): The sequence in the series is ×10,-5, which is repeated.

83. (c): There are two alternate series:



84. (b): There are two alternate series:



Series I: 1,2,3,4 (numbers are increasing in natural order)

Series II: 2,5,10 (third number is product of previous two numbers)

85. (a) Alternative numbers are marked positive and negative, but the difference between their magnitude increases by 2 at each step.