

NUMBERS SERIES

Directions (1-50): What will come in place of (?) in following series following a certain pattern?

Question 1: 375, 75, 30, 18, ?, 14.4

- A) 15
- B) 15.2
- C) 16
- D) 14.4
- E) 16.5

Question 2: 25, 89, 332, 588, 713, ?

- A) 855
- B) 856
- C) 749
- D) 860
- E) 785

Question 3: 18, 36, 62, 96, 138, ?

- A) 172
- B) 206
- C) 244
- D) 220
- E) 188

Question 4: 16, 24, 60, 210, 945, ?

- A) 5197.5
- B) 4234.5
- C) 5848.5
- D) 4113.5
- E) 5434.5

Question 5: 8, 18, 86, 308, 828, ?

- A) 1955
- B) 1902
- C) 1406
- D) 1838
- E) 1629

Question 6: 16, 20, 28, 27, 42, ?

- A) 26
- B) 45
- C) 67
- D) 42
- E) 32

Question 7: 5, 7, 11, 37, ?, 721

- A) 143

B) 294

C) 138

D) 147

E) 256

Question 8: 21, 33, 85, 301, 1359, ?

- A) 6066
- B) 7359
- C) 7480
- D) 6242
- E) 5155

Question 9: 6, 9, 24, 90, 432, ?

- A) 2380
- B) 1340
- C) 2460
- D) 2520
- E) 1420

Question 10: 4, 13, 41, 126, ?, 1151

- A) 382
- B) 688
- C) 453
- D) 562
- E) 436

Question 11: 210 209 213 186 202 (?)

- A) 138
- B) 77
- C) 177
- D) 327
- E) None of these

Question 12: 27 38 71 126 203 (?)

- A) 212
- B) 202
- C) 301
- D) 312
- E) None of these

Question 13: 435 354 282 219 165 (?)

- A) 103
- B) 112
- C) 120
- D) 130
- E) None of these

Question 14: 4 200 369 513 634 (?)

- A) 788
- B) 715
- C) 734
- D) 755
- E) None of these

Question 15: 95 485 465 425 345 ?

- A) 195
- B) 165
- C) 185
- D) 175
- E) None of these

Question 16: 16 22 33 49 70 ?

- A) 95
- B) 96
- C) 85
- D) 91
- E) None of these

Question 17: 32 36 52 88 152 ?

- A) 266
- B) 232
- C) 242
- D) 256
- E) None of theses

Question 18: 17 289 425 493 527 ?

- A) 534
- B) 542
- C) 544
- D) 594
- E) None of these

Question 19: 13 27 55 97 153 ?

- A) 243
- B) 265
- C) 215
- D) 223
- E) None of these

**Question 20: 50 60 75 97.5 ? 184.
275 267.19875**

- A) 120.50
- B) 130.50
- C) 131.625

D) 124.25

E) None of these

Question 21: 509, 68, 429, 140, 365, ?

- A) 194
- B) 192
- C) 196
- D) 195
- E) 197

Question 22: 1, 12, 14, ?, 66, 142

- A) 40
- B) 50
- C) 56
- D) 42
- E) 38

Question 23: $2\sqrt{3}$, $2\sqrt{5}$, $\sqrt{30}$, $\sqrt{42}$, $2\sqrt{14}$, ?

- A) $6\sqrt{2}$
- B) $\sqrt{60}$
- C) $5\sqrt{3}$
- D) $3\sqrt{5}$
- E) $\sqrt{50}$

Question 24: 1, 2, 6, 3, 289, ?

- A) 3172
- B) 3414
- C) 3192
- D) 3429
- E) 3439

Question 25: 8, 17, 34, 58, 88, ?

- A) 130
- B) 123
- C) 102
- D) 132
- E) 120

Question 26: 2556, 636, 156, ?, 6

- A) 36
- B) 72
- C) 100
- D) 112
- E) 20

Question 27: 21, 85, 253, 509, ?

- A) 506
- B) 505

- C) 510
- D) 521
- E) 511

Question 28: 19, 33, 67, 97, 147, ?

- A) 193
- B) 200
- C) 210
- D) 205
- E) 199

Question 29: 49, 60, 98, 102, 133, ?

- A) 139
- B) 145
- C) 140
- D) 130
- E) 120

Question 30: 318, 206, 150, ?, 108, 101

- A) 130
- B) 115
- C) 122
- D) 120
- E) 132

Question 31: 32, ?, 1024, 2048, 2048

- A) 324
- B) 256
- C) 224
- D) 326
- E) 274

Question 32: 9, 5, 6, 10.5, 23 ?

- A) 50
- B) 65
- C) 70
- D) 55
- E) 60

Question 33: 17, 98, 26, ?, 35, 80

- A) 79
- B) 69
- C) 89
- D) 59
- E) 49

Question 34: 2, 17, 89, 359, 1079, ?

- A) 2143
- B) 2152
- C) 2169
- D) 2159
- E) 2148

Question 35: 7, 4.5, 5.5, 12, 49, ?

- A) 393
- B) 351
- C) 362
- D) 375
- E) 364

Question 36: 7, 7, 13, 37, 97, ?

- A) 237
- B) 247
- C) 217
- D) 227
- E) 257

Question 37: 1, 20, 58, 134, 286, ?

- A) 600
- B) 590
- C) 580
- D) 570
- E) 560

Question 38: 3, 5, 15, 45, 113, ?

- A) 253
- B) 263
- C) 243
- D) 651
- E) 655

Question 39: 3.25, 6.5, 19.5, 78, 390, ?

- A) 2140
- B) 2350
- C) 2670
- D) 2340
- E) 2250

Question 40: 68, 117, 61, 124, 54, ?

- A) 141
- B) 121
- C) 151
- D) 131
- E) 111

Question 41: 17, 18, 26, 35, 99, ?

- (a) 224
- (b) 124
- (c) 148
- (d) 164
- (e) 225

Question 42: 23, 40, 74, 142, 278, ?

- (a) 392

- (b) 478
- (c) 544
- (d) 496
- (e) 550

Question 43: 69, 82, 71, 80, 73, ?

- (a) 78
- (b) 77
- (c) 79
- (d) 83
- (e) 86

Question 44: 53, 58, 75, 112, 177, ?

- (a) 261
- (b) 275
- (c) 278
- (d) 285
- (e) 317

Question 45: 23, 40, 64, 96, 137, ?

- (a) 197
- (b) 188
- (c) 183
- (d) 192
- (e) 201

Question 46: 23, 25, 79, 401, 2815, ?

- (a) 25345
- (b) 25340
- (c) 25350
- (d) 25445
- (e) 25355

Question 47: $14/3$, 8, 14, 24, 40, ?

- (a) 45
- (b) 85
- (c) 70
- (d) 65
- (e) 60

Question 48: ?, 32, 51, 74, 103, 134

- (a) 7
- (b) 15
- (c) 13
- (d) 17
- (e) 19

Question 49: ?, 164, 178, 157, 185, 150

- (a) 158
- (b) 169
- (c) 171
- (d) 173
- (e) 167

Question 50: ?, 124, 215, 342, 511, 728

- (a) 64
- (b) 63
- (c) 61
- (d) 60
- (e) 45

SOLUTIONS

1. Option D

Pattern:

Here last value is in decimals

So there is a possibility that the numbers are multiplied or divided by some decimal quantity

$$\times 0.2, \times 0.4, \times 0.6, \times 0.8, \times 1.0$$

2. Option C

Pattern:

When the number increase suddenly, we use multiplication to find pattern. But here they are not increasing suddenly, so try addition/subtraction

$$25 + 2^6, 89 + 3^5, 332 + 4^4, 588 + 5^3, 713 + 6^2$$

3. Option E

Pattern:

$$18 + 18 = 36$$

$$36 + (18+8) = 36 + 26 = 62$$

$$62 + (26+8) = 62 + 34 = 96$$

$$96 + (34+8) = 96 + 42 = 138$$

$$138 + (42+8) = 188$$

4. Option A

Pattern:

$$16 \times 1.5, 24 \times 2.5, 60 \times 3.5, 210 \times 4.5, 945 \times 5.5$$

5. Option D

Pattern:

$$8 + (2^3 + 2) = 18,$$

$$18 + (4^3 + 4) = 86,$$

$$86 + (6^3 + 6) = 308,$$

$$308 + (8^3 + 8) = 828,$$

$$828 + (10^3 + 10) = 1838$$

6. Option E

Pattern:

$$16 \dots\dots\dots 20 \dots\dots\dots 28 \dots\dots\dots 27 \dots\dots\dots 42 \dots\dots\dots 32$$

$$. \quad +4 \quad \quad +8 \quad \quad \quad -1 \quad \quad +15 \quad \quad -10$$

$$. \quad \quad +2^2 \quad \quad -3^2 \quad \quad +4^2 \quad \quad -5^2$$

7. Option A

Pattern:

$$5*1 + 2, 7*2 - 3, 11*3 + 4, 37*4 - 5, 143*5 + 6$$

8. Option C

Pattern:

$$\times 1.5 + 1.5, \times 2.5 + 2.5, \times 3.5 + 3.5, \times 4.5 + 4.5, \times 5.5 + 5.5,$$

9. Option D

Pattern:

$$6 \times 2 - 6/2 = 9,$$

$$9 \times 3 - 9/3 = 24,$$

$$24 \times 4 - 24/4 = 90,$$

$$90 \times 5 - 90/5 = 432,$$

$$432 \times 6 - 432/6 = 2520$$

10. Option A

Pattern:

$$4 \times 3 + 1 = 13,$$

$$13 \times 3 + 2 = 41,$$

$$41 \times 3 + 3 = 126,$$

$$126 \times 3 + 4 = 382,$$

$$382 \times 3 + 5 = 1151$$

11. B

The pattern of the number series is :

- $210 - 1^3 = 209$
- $209 + 2^2 = 213$
- $213 - 3^3 = 186$
- $186 + 4^2 = 202$
- $202 - 5^3 = 202 - 125 = 77$

12. E

The pattern of the number series is :

- $27 + 11 = 38$
- $38 + 33 = 71$
- $71 + 55 = 126$
- $126 + 77 = 203$
- $203 + 99 = 302$

13. C

The pattern of the number series is :

- $435 - 9 \times 9 = 354$
- $354 - 9 \times 8 = 282$
- $282 - 9 \times 7 = 219$
- $219 - 9 \times 6 = 165$
- $165 - 9 \times 5 = 120$

14. C

The pattern of the number series is :

- $4 + 14^2 = 4 + 196 = 200$
- $200 + 13^2 = 200 + 169 = 369$
- $369 + 12^2 = 369 + 144 = 513$
- $513 + 11^2 = 513 + 121 = 634$
- $634 + 10^2 = 634 + 100 = 734$

15. C

The pattern of the number series is :

- $495 - 1 \times 10 = 485$
- $485 - 2 \times 10 = 465$
- $465 - 4 \times 10 = 425$
- $425 - 8 \times 10 = 345$
- $345 - 16 \times 10 = 185$

16. B

The pattern of the number series is :

- $16 + 6 = 22$
- $22 + 11 = 33$
- $33 + 16 = 49$
- $49 + 21 = 70$
- $70 + 26 = 96$

17. E

The pattern of the number series is :

- $32 + 2^2 = 36$
- $36 + 4^2 = 52$
- $52 + 6^2 = 88$
- $88 + 8^2 = 152$
- $152 + 10^2 = 252$

18. C

The pattern of the number series is :

- $17 + 272 = 289$
- $289 + 136 = 425$
- $425 + 68 = 493$
- $493 + 34 = 527$
- $527 + 17 = 544$

19. D

The pattern of the number series is :

- $13 + 1 \times 14 = 27$
- $27 + 2 \times 14 = 55$
- $55 + 3 \times 14 = 97$
- $97 + 4 \times 14 = 153$
- $153 + 5 \times 14 = 223$

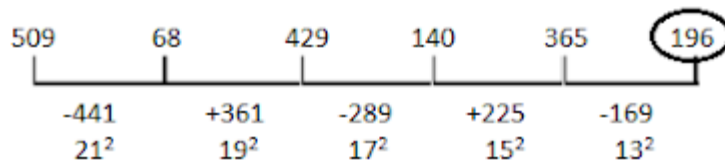
20. C

The pattern of the number series is :

- $50 \times 1.2 = 60$
- $60 \times 1.25 = 75$
- $75 \times 1.3 = 97.5$
- $97.5 \times 1.35 = 131.625$
- $131.625 \times 1.4 = 184.275$

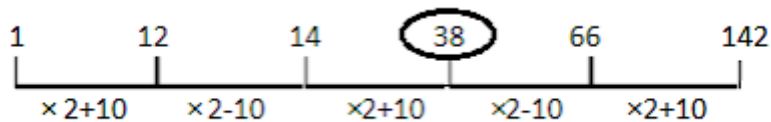
21. C

Solution:



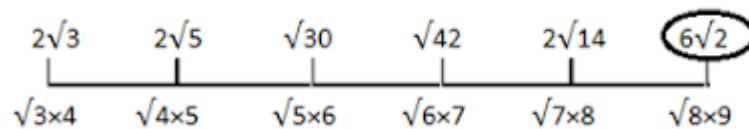
22. E

Solution:



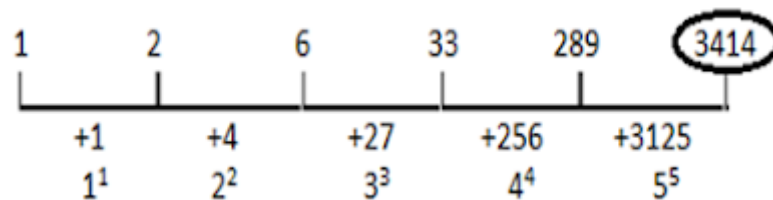
23. A

Solution:



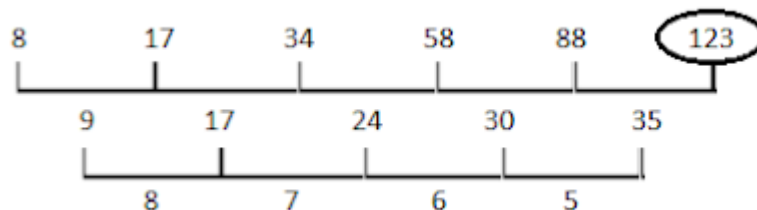
24. B

Solution:



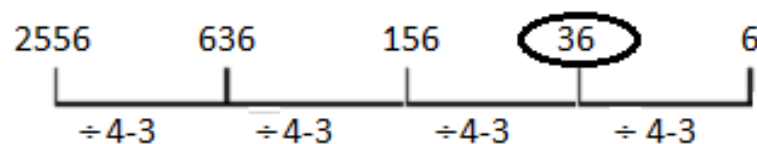
25. B

Solution:



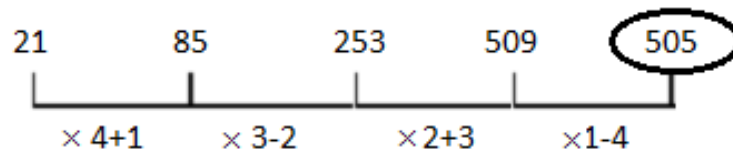
26. A

Solution:



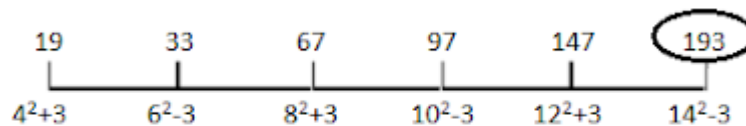
27. B

Solution:



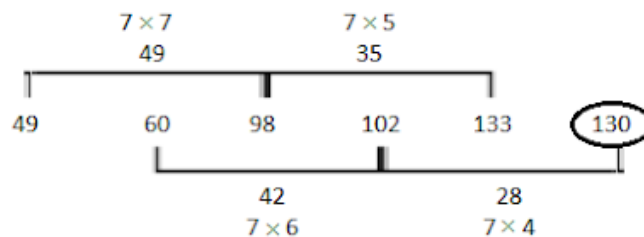
28. A

Solution:



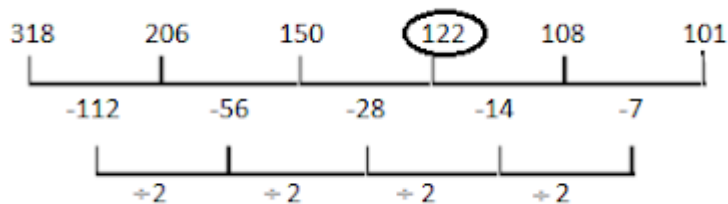
29.D

Solution:



30.C

Solution:



31.B

Explanation :

$$32 * 8 = 256$$

$$256 * 4 = 1024$$

$$1024 * 2 = 2048$$

32. E

Explanation :

$$9 * 0.5 + 0.5 = 5$$

$$5 * 1 + 1 = 6$$

$$6 * 1.5 + 1.5 = 10.5$$

$$10.5 * 2 + 2 = 23$$

$$23 * 2.5 + 2.5 = 60$$

33. C

Explanation :

$$26 - 17 = 9; 35 - 26 = 9$$

$$98 - 9 = 89$$

34. D

Explanation :

$$2 * 6 + 5 = 17$$

$$17 * 5 + 4 = 89$$

$$89 * 4 + 3 = 359$$

$$359 * 3 + 2 = 1079$$

$$1079 * 2 + 1 = 2159$$

35. A

Explanation :

$$7 \times 0.5 + 1 = 4.5.$$

$$4.5 \times 1 + 1 = 5.5.$$

$$5.5 \times 2 + 1 = 12.$$

$$12 \times 4 + 1 = 49.$$

$$49 \times 8 + 1 = 393.$$

36. C

Explanation :

$$7 + 1^3 - 1 = 7$$

$$7 + 2^3 - 2 = 13$$

$$13 + 3^3 - 3 = 37$$

37. B

Explanation :

$$1 * 2 + 18 = 20$$

$$20 * 2 + 18 = 58$$

$$58 * 2 + 18 = 134$$

$$134 * 2 + 18 = 286$$

38. C

Explanation :

$$3 * 1^3 + 1 = 5$$

$$5 * 2^3 + 2 = 15$$

$$15 * 3^3 + 3 = 45$$

$$45 * 4^3 + 4 = 113$$

39. D

Explanation :

$$3.25 * 2 = 6.5$$

$$6.5 * 3 = 19.5$$

$$19.5 * 4 = 78$$

40. D

Explanation :

$$68 - 7 = 61; 61 - 7 = 54$$

$$124 + 7 = 131$$

41. B

$$1^2 + 2^3 + 3^2 + 4^3 + 5^2 = 124$$

42. E

$$17 + 34 + 68 + 136 + 272 = 550$$

43. A

$$+13, -11, +9, -7, +5$$

44. C

45. B

46. A

47. D

48. B

49. C

50. B