

ANALOGY

(Number Analogy)

1. 45 : 36 :: 63 : ?

(1) 71

(2) 54

(3) 61

(4) 64

2. 13 : 5 :: 32 : ?

(1) 24

(2) 37

(3) 45

(4) 56

3. $2 : 0 :: 3 : ?$

(1) 18

(2) 19

(3) 20

(4) 21

4. $525 : 25 :: 315 : ?$

(1) 10

(2) 15

(3) 5

(4) 25

5. 7 : 32 :: 35 : ?

(1) 144

(2) 156

(3) 160

(4) 172

6. 9 : 24 :: 6 : ?

(1) 3

(2) 2

(3) 1

(4) 5

7. 20 : 30 :: ? : 72

(1) 56

(2) 59

(3) 68

(4) 61

8. 1, 2, 4, 7 : 3, 4, 6, 9 :: ? : 2, 3, 5, 8

(1) 0, 1, 3, 6

(2) 2, 4, 5, 8

(3) 1, 3, 4, 7

(4) 3, 5, 6, 8

9. $\frac{2}{3} : \frac{19}{29} :: \frac{8}{7} : ?$

(1) $\frac{89}{79}$

(2) $\frac{79}{79}$

(3) $\frac{79}{69}$

(4) $\frac{8}{70}$

10. $11 : 1332 :: 12 : ?$

(1) 1728

(2) 1443

(3) 1729

(4) 1458

11. 69 : 87 :: ? : ?

12. 2739 : 64416 :: 125525 : ?

(1) 77 : 97

(2) 117 : 135

(3) 95 : 107

(4) 121 : 145

(1) 216266

(2) 212636

(3) 216636

(4) 366216

13. 42 : 14 :: 56 : ?

- (1) 18**
- (2) 41**
- (3) 48**
- (4) 65**

14. 09 : 29 :: 21 : ?

- (1) 85**
- (2) 65**
- (3) 55**
- (4) 76**

15. 2 : 10 :: 8 : ?

- (1) 82
- (2) 648
- (3) 132
- (4) 76

16. 56 : 30 :: 78 : ?

- (1) 61
- (2) 53
- (3) 502
- (4) 56

17. 18 : 30 :: 36 : ?

- (1) 64**
- (2) 66**
- (3) 62**
- (4) 68**

18. 45 : 140 :: 70 : ?

- (1) 305**
- (2) 195**
- (3) 215**
- (4) 180**

19. 16 : 48 :: ? : ?

- (1) 25 : 75**
- (2) 11 : 32**
- (3) 25 : 64**
- (4) 49 : 72**

20. 107 : 11449 :: 106 : ?

- (1) 10636**
- (2) 11206**
- (3) 11236**
- (4) 11272**

21. 14 : 200 :: 18 : ?

- (1) 328**
- (2) 340**
- (3) 460**
- (4) 350**

22. 63 : 36 :: ? : ?

- (1) 94 : 49**
- (2) 35 : 54**
- (3) 47 : 72**
- (4) 73 : 39**

23. 49 : 147 :: ? : ?

- (1) 71 : 203**
- (2) 63 : 189**
- (3) 55 : 175**
- (4) 69 : 217**

24. 216 : 18 :: 125 : ?

- (1) 45**
- (2) 15**
- (3) 25**
- (4) 35**

25. 52 : 2700 :: 62 : ?

(1) 3822

(2) 8322

(3) 3844

(4) 3840

26. 12 : 156 :: 14 : ?

(1) 195

(2) 205

(3) 208

(4) 210

27. **5 : 125 :: 11 : ?**

- (1) 1231
- (2) 1331
- (3) 1441
- (4) 1551

28. **142 : 15 :: 234 : ?**

- (1) 45
- (2) 39
- (3) 33
- (4) 47

29. 123 : 1728 :: 142 : ?

- (1) 648**
- (2) 786**
- (3) 196**
- (4) 2104**

30. 87 : 260 :: 114 : ?

- (1) 281**
- (2) 341**
- (3) 293**
- (4) 357**

31. **96 : 6 :: 256 : ?**

- (1) 16
- (2) 25
- (3) 66
- (4) 46

32. **41 : 4 :: 37 : ?**

- (1) 34
- (2) 21
- (3) 22
- (4) 16

33. 48 : 196 :: 52 : ?

- (1) 184
- (2) 198
- (3) 212
- (4) 238

34. 23 : 72 :: 38 : ?

- (1) 110
- (2) 117
- (3) 123
- (4) 112

35. **62 : 145 :: ? : ?**

- (1) 79 : 168
- (2) 119 : 226
- (3) 167 : 291
- (4) 34 : 122

36. **41 : 66 :: ? : ?**

- (1) 29 : 54
- (2) 32 : 59
- (3) 31 : 54
- (4) 33 : 59

37. **672 : 44 :: 437 : ?**

- (1) 22
- (2) 19
- (3) 34
- (4) 18

38. **43 : 66 :: 91 : ?**

- (1) 114
- (2) 124
- (3) 126
- (4) 108

39. **91 : 64 :: ? : 36**

- (1) 48
- (2) 98
- (3) 61
- (4) 93

40. **13 : 167 :: 23 : ?**

- (1) 527
- (2) 525
- (3) 531
- (4) 532

1.(2) $9 \times 5 = 45$ and $9 \times 4 = 36$ Similarly, $9 \times 7 = 63$ and $9 \times 6 = 54$.

**2.(1) (i) $13 : 5$ Relation is $(13) - 8 = (5)$ Applying same relation to $32 : ?$
 $(32) - 8 = (24)$.**

**3.(2) The relation between the two numbers is: $x:(x^3 - 8)$
For $x=2$, $2:(2^3 - 8) \Rightarrow 2:(8 - 8)$ i.e. $2:0$. First number in the second pair is 3. So, take $x=3$ i.e. $3:(3^3 - 8) \Rightarrow 3:(27 - 8)$**

4 (2)

$$\frac{525}{25} = \frac{315}{?}$$
$$\Rightarrow ? = \frac{315}{21} = 15$$

**5 (4) (i) $7:32$ Relation is $(7) \times 5 - 3 = 35 - 3 = (32)$
Applying same relation to $35:?$
 $(35) \times 5 - 3 = 175 - 3 = (172)$**

6.(1) Observing the given relation 9:24

$$9 = \frac{24}{3} + 1$$

Similarly the number which is related with 6 will be

$$\frac{6}{3} + 1 = 3$$

7.(1) First term: $4^2 + 4$

Second term: $5^2 + 5$

Similarly,

Third term: $6^2 + 6$

Fourth term: $7^2 + 7$

Hence, "56" is the answer.

8.(1) First part of analogy 1,2,4,7:3,4,6,9

Numbers 1,2,4,7 could be obtained by subtracting 2 from each number of 3,4,6,9

Similarly numbers in ? could be obtained by subtracting 2 from each number of 2,3,5,8 which gives 0,1,3,6

So 1,2,4,7:3,4,6,9::0,1,3,6:2,3,5,8

9.(3) As $\frac{2}{3} \Rightarrow \frac{(2 \times 10) - 1}{(3 \times 10) - 1} = \frac{19}{29}$

Similarly,

$$\frac{8}{7} \Rightarrow \frac{(8 \times 10) - 1}{(7 \times 10) - 1} = \frac{79}{69}$$

10.(3) As $11^3 + 1 = 1331 + 1 = 1332$

Similarly, $12^3 + 1 = 1728 + 1 = 1729$

11.(2) First number + 18 = Second number

In $117 : 135 = 117 + 18 = 135$

12.(3) Logic:- $2739 : 64416$

$$27 \ 3 \ 9 = 3^3 \ 3^1 \ 3^2$$

$$64 \ 4 \ 16 = 4^3 \ 4^1 \ 4^2$$

Similarly,

$$12525 : ?$$

$$125 \ 5 \ 25 = 5^3 \ 5^1 \ 5^2$$

$$216 \ 6 \ 36 = 6^3 \ 6^1 \ 6^2$$

13.(2) The pattern followed is:

$$42 = (4 \times 2) + (4 + 2) = 8 + 6 = 14$$

Similarly,

$$56 = (5 \times 6) + (5 + 6) = 30 + 11 = 41$$

14.(2) As $(9 \times 3) + 2 = 27 + 2 = 29$

Similarly,

$$(21 \times 3) + 2 = 63 + 2 = 65$$

15.(1) $2 : 10 = (\text{Square of Number } (2)) + (\text{Number} \times 2(2 \times 2)) + 2$

$$\therefore (4) + (4) + 2 = 10$$

$8 : 82 = (\text{Square of Number } (8)) + (\text{Number} \times 2(8 \times 2)) + 2$

$$\therefore (64) + (16) + 2 = 82$$

16.(4) $56 : 30 \rightarrow 56 : (5 \times 6)$

Similarly, $78 : ? \rightarrow 78 : (7 \times 8) \rightarrow ? = 56$

17.(2) Logic :- $2x - 6 \rightarrow (18 \times 2) - 6 = 36 - 6 = 30$

Similarly, $(36 \times 2) - 6 = 72 - 6 = 66$

18.(3) Logic :- $3x + 5 \rightarrow (45 \times 3) + 5 = 140$

Similarly, $(70 \times 3) + 5 = 215$

19.(1) Logic :- $x \times 3 \rightarrow 16 \times 3 = 48$

Similarly, $25 \times 3 = 75$

20.(3) Logic :- $107 : 11449 \rightarrow 10 (7 \times 2) 7^2 = 11449$

Similarly, $106 : ? \rightarrow 10 (6 \times 2) 6^2 = 11236$

21.(1) Logic :- $14 : 200 \rightarrow 14^2 + 4 = 200$

Similarly, $18 : ? \rightarrow 18^2 + 4 = 328$

22.(1) Logic :- Reverse of First number = Second number

$63 : 36$

Similarly, $94 : 49$

23.(2) Logic :- First number $\times$ 3 = Second number

$$49 \times 3 = 147$$

Similarly, $63 \times 3 = 189$

24.(2) Logic :- (First number + Second digit) $\times$ Third digit = Second number

$$216 : 18 = (2+1) \times 6 = 3 \times 8 = 18$$

Similarly, $125 : ? = (1 + 2) \times 5 = 3 \times 5 = 15$

25.(3) Relation between 52: 2700 is 52 square 2704, $2704 - 4 = 2700$

So, 62 square 3844, $3844 - 4 = 3840$

26.(4) Logic :- (First number)² + Itself = Second number

$$12^2 + 12 = 156$$

Similarly, $14^2 + 14 = 210$

27.(2) Logic :- Cube of 1st number = 2nd number

$$5^3 = 125$$

Similarly, $11^3 = 1331$

28.(3) The pattern followed is: $(1 \times 4 \times 2) + (1 + 4 + 2) = 15$

Similarly, $(2 \times 3 \times 4) + (2 + 3 + 4) = 33$

29.(3) Logic :- $123 : 1728 \rightarrow 12^3 = 1728$

Similarly, $142 : ? \rightarrow 14^2 = 196$

30.(2) The pattern followed here is:

$$87 \times 3 = 261 - 1 = 260$$

$$\text{Similarly, } 114 \times 3 = 342 - 1 = 341$$

31.(1) Logic :- First number $\div$ 16 = Second number

$$96 \div 16 = 6$$

$$\text{Similarly, } 256 \div 16 = 16$$

32.(2) Logic :- Product of the digits of first number = Second number

$$\text{In } 41:4 \rightarrow 4 \times 1 = 4$$

$$\text{Similarly, In } 37:21 \rightarrow 3 \times 7 = 21$$

33.(3) Here the pattern followed is:

$$(48 \times 4) + 4 = 196$$

$$\text{Similarly, } (52 \times 4) + 4 = 212$$

34.(2) Logic :- (First number $\times$ 4) + 4 = Second number

$$(23 \times 4) + 4 = 72$$

$$\text{Similarly, } (38 \times 4) + 4 = 117$$

35.(2) 62 : 145

$$8^2 = 64, 64 - 2 = 62$$

$$12^2 = 144, 144 + 1 = 145$$

So, 62 : 145

Similarly,

119 : 226

$$11^2 = 121, 121 - 2 = 119$$

$$15^2 = 225, 225 + 1 = 226$$

So, 119 : 226

36.(1) Logic :-

$$41 : 66 \rightarrow 41 : 41 + 25 = 66$$

$$\text{Similarly, } 29 : 54 \rightarrow 29 : 29 + 25 = 54$$

37.(2) Relation between 672 : 44 $\rightarrow (6 \times 7) + 2 = 44$

So, $(4 \times 3) + 7 = 19$

38.(1) Here the pattern is such that the 2nd number is 23 more than the 1st number i.e.

43 : 66 $\rightarrow 43 + 23 = 66$.

Similarly, 91 : ? $\rightarrow 91 + 23 = 114$.

39.(4) Relation between 91 : 64

$9 - 1 = 8$, 8 square = 64

So, In 93 : ? $9 - 3 = 6$. 6 square = 36

40.(1) Logic :- Square of 1st number - 2 = 2nd number

$13^2 - 2 = 167$

Similarly, $23^2 - 2 = 527$