

రీజనింగ్ అండ్ మెంటల్ ఎబిలిటీ పోలికలు

$$a : b :: c : ?$$

నెంబరు a, b లు ఒక ఆధారంలో ఉంటే నెంబరు c అదే ఆధారంలోకి ఎలా మారుతుందో కనుక్కోవాలి.

$$2 : 4 :: 3 : ?$$

2, 4 అవడానికి ఉన్న అవకాశాలు

$$4 = 2 + 2(n + 2)$$

$$4 = 2^2 \quad (n^2)$$

$$4 = 2^3 - 2^2 \quad (n^3 - n^2)$$

$$4 = 2 \times 3 - 2 (n(n + 1) - 2))$$

ఇదే ఆధారంలో 3 కున్న అవకాశాలు

$$3 + 2 = 5$$

$$3^2 = 9$$

$$3^3 - 3^2 = 18$$

$$3 \times 3 - 2 = 7$$

ఇలా ఆధారాలను కనుక్కుని ఆప్షన్లలో ఉన్న సమాధానాన్ని గుర్తించాలి. సంక్షిప్త పద్ధతులను బాగా సాధన చేస్తే ఆధారాలను త్వరగా గుర్తించవచ్చు.

ముఖ్యమైన సంబంధాలు:

'0' తో మొదలైతే: $1^2 - 1 \quad (n^2 - 1)$

$$1^3 - 1 \quad (n^3 - 1)$$

$$1^3 - 1^2 \quad (n^3 - n^2) \text{ కు అవకాశాలు ఉంటాయి.}$$

'100' ఉంటే: $10^2 \quad n^2$

$$5^3 - 5^2 \quad n^3 - n^2 \text{ కు అవకాశాలు ఉంటాయి.}$$

$$8^2 + 6^2 \quad n^2 + (n + 2)^2$$

'9' ఉంటే: $3^2 \quad n^2$

$$2^3 + 1 \quad (n^3 + 1)$$

'25' ఉంటే: $5^2 \quad n^2$

$$4^2 + 3^2 \quad n^3 + (n - 1)^2$$

'27' ఉంటే: $3^3 \quad n^3$

$$5^2 + 2 \quad n^2 + 2$$

'150' ఉంటే: $5^2 + 5^3 \quad n^2 + n^3$

$$6 \times 5^2 \quad 6n^2$$

'210' ఉంటే: $2 \times 10^2 + 10$	$2n^2 + n$
$6^3 - 6$	$n^3 - n$
'729' ఉంటే: 9^3	n^3
27^2	n^2
'625' ఉంటే: 5^4	n^4
25^2	n^2

మాదిరి ప్రశ్నలు

- 5 : 35 :: 9 : ?
1) 36 2) 63 3) 45 4) 81
- 4 : 32 :: 6 : ?
1) 42 2) 48 3) 54 4) 70
- 8 : 64 :: 10 : ?
1) 90 2) 94 3) 95 4) 100
- 5 : 25 :: 7 : ?
1) 35 2) 49 3) 35, 49 4) ఏదీకాదు
- 2 : 6 :: 4 : ?
1) 12 2) 20 3) 60 4) అన్నీ
- 4 : 8 :: 9 : ?
1) 17 2) 19 3) 27 4) 37
- 10 : 50 :: 20 : ?
1) 25 2) 40 3) 200 4) ఏదీకాదు
- 30 : 130 :: 90 : ?
1) 900 2) 824 3) 738 4) ఏదీకాదు
- 3 : 11 :: 7 : ?
1) 17 2) 51 3) 17, 51 4) ఏదీకాదు
- 4 : 32 :: 10 : ?
1) 500 2) 600 3) 700 4) 800
- 20 : 11 :: 102 : ?
1) 49 2) 52 3) 61 4) 98
- 9 : 80 :: 100 : ?
1) 901 2) 1009 3) 9889 4) 9999
- 12 : 144 :: ?
1) 22 : 464 2) 20 : 400 3) 15 : 135 4) 10 : 140

14. 27 : 9 :: ?

- 1) 64 : 8 2) 125 : 5 3) 135 : 15 4) 729 : 81

15. 5 : 35 :: ?

- 1) 7 : 77 2) 9 : 45 3) 11 : 55 4) 3 : 24

16. ఇచ్చిన సమితి (9, 15, 21)

- 1) (10, 14, 16) 2) (7, 21, 28) 3) (5, 10, 25) 4) (4, 8, 12)

17. ఇచ్చిన సమితి (12, 20, 4)

- 1) (5, 10, 5) 2) (13, 18, 5) 3) (17, 27, 5) 4) (20, 15, 25)

18. ఇచ్చిన సమితి (21, 51, 15)

- 1) (21, 30, 51) 2) (21, 35, 41) 3) (21, 51, 42) 4) (21, 91, 35)

19. ఇచ్చిన సమితి (8, 3, 2)

- 1) (10, 6, 5) 2) (63, 8, 3) 3) (95, 24, 5) 4) (168, 15, 4)

20. ఇచ్చిన సమితి (14, 23, 32)

- 1) (15, 23, 31) 2) (14, 19, 24) 3) (13, 21, 19) 4) (12, 21, 30)

21. 6 : 18 :: 4 : ?

- 1) 2 2) 6 3) 8 4) 16

22. 21 : 3 :: 574 : ?

- 1) 23 2) 82 3) 97 4) 113

23. 1 : 1 :: 25 : ?

- 1) 26 2) 125 3) 240 4) 625

24. 121 : 12 :: 25 : ?

- 1) 1 2) 2 3) 6 4) 7

25. 42 : 20 :: 64 : ?

- 1) 31 2) 32 3) 33 4) 34

26. 7528 : 5306 :: 4673 : ?

- 1) 2367 2) 2451 3) 2531 4) ఏదీకాదు

27. 25 : 37 :: 49 : ?

- 1) 41 2) 56 3) 60 4) 65

28. 25 : 125 :: 36 : ?

- 1) 180 2) 206 3) 216 4) 318

29. 14 : 9 :: 26 : ?

- 1) 12 2) 13 3) 15 4) 31

30. 8 : 28 :: 27 : ?

1) 8

2) 28

3) 64

4) 65

31. 583 : 293 :: 488 : ?

1) 291

2) 378

3) 487

4) 581

32. 7 : 56 :: 9 : ?

1) 63

2) 81

3) 90

4) 99

33. 9 : 8 :: 16 : ?

1) 27

2) 18

3) 17

4) 14

34. 8 : 81 :: 64 : ?

1) 125

2) 137

3) 525

4) 625

35. 17 : 52 :: 1 : ?

1) 3

2) 4

3) 5

4) 51

సమాధానాలు - వివరణ

1-2: $\begin{matrix} \times 7 & \times 7 \\ \text{---} & \text{---} \\ 5 : 35 :: 9 : ? \end{matrix}$ (63)

2-2: $\begin{matrix} \times 8 & \times 8 \\ \text{---} & \text{---} \\ 4 : 32 :: 6 : ? \end{matrix}$ (48)

3-4: $\begin{matrix} 8^2 & 10^2 \\ \text{---} & \text{---} \\ 8 : 64 :: 10 : ? \end{matrix}$ (100)

4-3: $\begin{matrix} \times 5 & \times 5 \\ \text{---} & \text{---} \\ 5 : 25 :: 7 : ? \end{matrix}$ (35)

5-4: $\begin{matrix} \times 3 & \times 3 \\ \text{---} & \text{---} \\ 2 : 6 :: 4 : ? \end{matrix}$ (12)

$\begin{matrix} (2^3 - 2) & (4^3 - 4) \\ \text{---} & \text{---} \\ 2 : 6 :: 4 : ? \end{matrix}$ (60)

$\begin{matrix} \times(2+1) & \times(4+1) \\ \text{---} & \text{---} \\ 2 : 6 :: 4 : ? \end{matrix}$ (20)

$2 : 6 :: 4 : ?$ (60)

6-3: $\begin{matrix} 2^2 & 2^3 & 3^2 & 3^3 \\ \text{---} & \text{---} & \text{---} & \text{---} \\ 4 : 8 :: 9 : ? \end{matrix}$ (27)

7-3: $\begin{matrix} \frac{10^2}{2} & \frac{20^2}{2} \\ \text{---} & \text{---} \\ 10 : 50 :: 20 : ? \end{matrix}$ (200)

8-3: $\begin{matrix} 5^2+5 & 5^3+5 & 9^2+9 & 9^3+9 \\ \text{---} & \text{---} & \text{---} & \text{---} \\ 30 : 130 :: 90 : ? \end{matrix}$ (738)

$$9-2: \begin{array}{c} 3^2 + 2 \\ \text{---} \\ 3 \end{array} : 11 :: \begin{array}{c} 7^2 + 2 \\ \text{---} \\ 7 \end{array} : ? (51)$$

$$10-1: \begin{array}{c} 4^3 \\ \text{---} \\ 2 \end{array} : 32 :: \begin{array}{c} 10^3 \\ \text{---} \\ 2 \end{array} : ? (500)$$

$$11-2: \begin{array}{c} 2 \times 10 \\ \text{---} \\ 20 \end{array} : \begin{array}{c} (10 + 1) \\ \text{---} \\ 11 \end{array} :: \begin{array}{c} 2 \times 51 \\ \text{---} \\ 102 \end{array} : \begin{array}{c} (5 + 1) \\ \text{---} \\ ? \end{array} (52)$$

$$12-4: \begin{array}{c} 9^2 - 1 \\ \text{---} \\ 9 \end{array} : 80 :: \begin{array}{c} 100^2 - 1 \\ \text{---} \\ 100 \end{array} : ? (9999)$$

$$13-2: \begin{array}{c} 12^2 \\ \text{---} \\ 12 \end{array} : 144 :: \begin{array}{c} 20^2 \\ \text{---} \\ 20 \end{array} : 400 (20 : 400)$$

$$14-4: \begin{array}{c} 3^3 \\ \text{---} \\ 27 \end{array} : \begin{array}{c} 3^2 \\ \text{---} \\ 9 \end{array} :: \begin{array}{c} 9^3 \\ \text{---} \\ 729 \end{array} : \begin{array}{c} 9^2 \\ \text{---} \\ 81 \end{array} (729 : 81)$$

$$15-1: \begin{array}{c} \times 7 \\ \text{---} \\ 5 \end{array} : 35 :: \begin{array}{c} \times 11 \\ \text{---} \\ 7 \end{array} : 77 (7 : 77)$$

★ మొదటి సంఖ్యను దాని తర్వాతి ప్రధాన సంఖ్యతో గుణిస్తే రెండో సంఖ్య వస్తుంది.

$$\begin{array}{c} 9 + 21 \\ \text{---} \\ 2 \end{array} = 15 \quad \begin{array}{c} 4 + 12 \\ \text{---} \\ 2 \end{array} = 8$$

$$16-4: (9, 15, 21) = (4, 8, 12)$$

$$12 + 20 + 4 = 36 \quad 13 + 18 + 5 = 36$$

$$17-2: (12, 20, 4) = (13, 18, 5)$$

$$(15 \times 2 + 21) = 51 \quad (35 \times 2 + 21) = 91$$

$$18-4: (21, 51, 15) = (21, 91, 35)$$

$$\begin{array}{c} 3^2 - 1 \\ \uparrow \\ 8 \end{array} \quad \begin{array}{c} 2^2 - 1 \\ \uparrow \\ 3 \end{array} \quad \begin{array}{c} 8^2 - 1 \\ \uparrow \\ 63 \end{array} \quad \begin{array}{c} 3^2 - 1 \\ \uparrow \\ 8 \end{array} \quad \begin{array}{c} 2^2 - 1 \\ \uparrow \\ 3 \end{array}$$

$$19-2: (8, 3, 2) = (63, 8, 3)$$

$$\text{మొదటి సంఖ్య} = (\text{రెండో సంఖ్య})^2 - 1$$

$$\text{అదే విధంగా రెండో సంఖ్య} = (\text{మూడో సంఖ్య})^2 - 1$$

$$\begin{array}{cccc} 14 + 9 & 23 + 9 & 12 + 9 & 21 + 9 \\ \uparrow & \uparrow & \uparrow & \uparrow \end{array}$$

20-4: (14, 23, 32) = (12, 21, 30)

రెండో సంఖ్య = మొదటి సంఖ్య + 9

అదేవిధంగా మూడో సంఖ్య = రెండో సంఖ్య + 9

$$\frac{6^2}{2} \quad \frac{4^2}{2}$$

21-3: $6 : 18 :: 4 : ?$ (8)

$$\frac{21}{7} \quad \frac{574}{7}$$

22-2: $21 : 3 :: 574 : ?$ (82)

$$1 \cdot 1^2 \quad 25 \cdot 25^2$$

23-4: $1 : 1 :: 25 : ?$ (625)

$$11^2 \cdot (11 + 1) \quad 5^2 \cdot (5 + 1)$$

24-3: $121 : 12 :: 25 : ?$ (6)

$$(2 \times 20 + 2) \cdot 20 \quad (2 \times 31 + 2) \cdot 31$$

25-1: $42 : 20 :: 64 : ?$ (31)

$$7528 - 2222 \quad 4673 - 2222$$

26-2: $7528 : 5306 :: 4673 : ?$ (2451)

$$5^2 \cdot (5 + 1)^2 + 1 \quad 7^2 \cdot (7 + 1)^2 + 1$$

27-4: $25 : 37 :: 49 : ?$ (65)

$$5^2 \cdot 5^3 \quad 6^2 \cdot 6^3$$

28-2: $25 : 125 :: 36 : ?$ (216)

$$(2 \times 9 - 4) \cdot 9 \quad (2 \times 15 - 4) \cdot 15$$

29-3: $14 : 9 :: 26 : ?$ (15)

$$2^3 \cdot (2 + 1)^3 + 1 \quad 3^3 \cdot (3 + 1)^3 + 1$$

30-4: $8 : 28 :: 27 : ?$ (65)

$$16 - 14 = 2$$

$$(5 + 8 + 3) = 16 \quad (2 + 9 + 3) = 14$$

$$31-2: \quad 583 \quad : \quad 293$$

$$20 - 18 = 2$$

$$(4 + 8 + 8) = 20 \quad (3 + 7 + 8) = 18$$

$$\therefore 488 \quad : \quad ? (378)$$

$$7 \quad 7(7+1) \quad 9 \quad 9(9+1)$$

$$32-3: \quad 7 \quad : \quad 56 \quad \therefore \quad 9 \quad : \quad ? (90)$$

$$3^2 \quad (3-1)2+1 \quad 4^2 \quad (4-1)2+1$$

$$33-1: \quad 9 \quad : \quad 8 \quad \therefore \quad 16 \quad : \quad ? (27)$$

$$2^3 \quad (2+1)^3+1 \quad 4^3 \quad (4+1)^3+1$$

$$34-4: \quad 8 \quad : \quad 81 \quad \therefore \quad 64 \quad : \quad ? (625)$$

$$17 \quad (3 \times 17 + 1) \quad 1 \quad (3 \times 1 + 1)$$

$$35-2: \quad 17 \quad : \quad 52 \quad \therefore \quad 1 \quad : \quad ? (4)$$

రచయిత: పి.షణ్ముఖాచారి