

Pattern Puzzles – Pack 19

Puzzle 1. What comes next in the sequence?

6 6 2 15 24 42 82 149 ?

- A) 273 B) 274 C) 225 D) 275

Puzzle 2. What comes next in the sequence?

12 3 11 15 19 9 15 22 26 15 19 29 ?

- A) 32 B) 34 C) 33 D) 21

Puzzle 3. What comes next in the sequence?

8 36 128 350 792 1568 2816 4698 ?

- A) 7400 B) 7424 C) 7376 D) 4698

Puzzle 4. What comes next in the sequence?

13 11 5 4 16 15 12 9 19 19 19 14 ?

- A) 22 B) 24 C) 19 D) 23

Puzzle 5. What comes next in the sequence?

11 53 185 485 1055 2021 3533 5765 ?

- A) 5765 B) 8891 C) 8939 D) 8915

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Puzzle 6. What comes next in the sequence?

6	46	174	468	1030	1986	3486	5704	?
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- A) 5704 B) 8838 C) 8814 D) 8862

Puzzle 7. What comes next in the sequence?

6	3	5	15	24	45	85	155	?
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- A) 287 B) 285 C) 248 D) 286

Puzzle 8. What number replaces the question mark in the grid?

2	9	7
3	2	10
23	25	?

- A) 30 B) 29 C) 28 D) 19

Puzzle 9. What comes next in the sequence?

8	2	6	12	12	10	9	16	16	18	12	20	?
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- A) 24 B) 20 C) 21 D) 26

Puzzle 10. What comes next in the sequence?

3	5	3	12	21	37	71	130	?
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- A) 239 B) 238 C) 240 D) 241

Answer Key

1. **B) 274**

Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+1$.

6. **B) 8838**

4th differences are all 24 (quartic sequence).

2. **C) 33**

Four interleaved arithmetic series (period 4):

7. **D) 286**

Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+1$.

3. **A) 7400**

4th differences are all 24 (quartic sequence).

8. **C) 28**

Column sums are triangular numbers: 28, 36, 45.

4. **A) 22**

Four interleaved arithmetic series (period 4):

9. **B) 20**

Four interleaved arithmetic series (period 4):

5. **D) 8915**

4th differences are all 24 (quartic sequence).

10. **A) 239**

Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+1$.