

Pattern Puzzles – Pack 7

Puzzle 1. What number replaces the question mark in the grid?

4	4	13
7	1	26
8	18	?

- A) 28
 B) 42
 C) 29
 D) 8

Puzzle 2. What comes next in the sequence?

4	5	11	28	73	191	500	?
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- A) 3427
 B) 809
 C) 3426
 D) 1500

Puzzle 3. What comes next in the sequence?

3	4	9	23	60	157	411	?
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- A) 2817
 B) 665
 C) 2816
 D) 1233

Puzzle 4. What comes next in the sequence?

2	3	3	6	5	12	8	24	13	?
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- A) 49
 B) 21
 C) 48
 D) 40

Puzzle 5. What number replaces the question mark in the grid?

1	1	3
2	1	5
2	3	?

- A) 3
 B) 8
 C) 7
 D) 11

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Puzzle 6. What number replaces the question mark in the grid?

1	1	3
1	1	6
3	3	?

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Puzzle 7. What number replaces the question mark in the grid?

1	1	3
1	1	6
4	4	?

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Puzzle 8. What comes next in the sequence?

2	2	5	4	7	8	12	16	19	?
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Puzzle 9. What comes next in the sequence?

3	3	10	22	48	95	179	323	?
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Puzzle 10. What comes next in the sequence?

4	7	17	44	115	301	788	?
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Answer Key

1. **C) 29**

Row sums are Fibonacci numbers: $F(8)=21$, $F(9)=34$, $F(10)=55$.

6. **C) 7**

Row sums are Fibonacci numbers: $F(5)=5$, $F(6)=8$, $F(7)=13$.

2. **A) 3427**

Rule: $a(n) = 3 \times a(n-1) - a(n-2)$ (Lucas-type sequence).

7. **C) 5**

Row sums are Fibonacci numbers: $F(5)=5$, $F(6)=8$, $F(7)=13$.

3. **A) 2817**

Rule: $a(n) = 3 \times a(n-1) - a(n-2)$ (Lucas-type sequence).

8. **B) 32**

Odd positions: Fibonacci-like sequence starting 2, 5.

4. **C) 48**

Odd positions: Fibonacci-like sequence starting 2, 3.

9. **B) 566**

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

5. **B) 8**

Row sums are Fibonacci numbers: $F(5)=5$, $F(6)=8$, $F(7)=13$.

10. **D) 5401**

Rule: $a(n) = 3 \times a(n-1) - a(n-2)$ (Lucas-type sequence).