

Pattern Puzzles – Pack 25

Puzzle 1. What comes next in the sequence?

3	4	3	12	21	38	73	134	?
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- A) 249
 B) 269
 C) 247
 D) 245

Puzzle 2. What number replaces the question mark in the grid?

1	4	20
4	5	27
9	11	?

- A) 18
 B) 30
 C) 16
 D) 29

Puzzle 3. What comes next in the sequence?

4	3	4	13	22	41	78	143	?
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- A) 264
 B) 266
 C) 262
 D) 302

Puzzle 4. What comes next in the sequence?

4	11	5	11	10	15	7	19	16	19	9	27	?
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- A) 19
 B) 20
 C) 22
 D) 23

Puzzle 5. What comes next in the sequence?

13	7	9	15	15	13	15	23	17	19	21	31	?
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- A) 25
 B) 19
 C) 20
 D) 23

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

7	2	1
2	20	2
12	6	?

- A) 33
 B) 25
 C) 34
 D) 30

Puzzle 7. What comes next in the sequence?

8	40	146	398	892	1748	3110	5146	?
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- A) 8048
 B) 5146
 C) 8024
 D) 8072

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

8	6	2
8	2	12
12	28	?

- A) 31
 B) 27
 C) 22
 D) 32

Puzzle 9. What comes next in the sequence?

5	38	147	404	905	1770	3143	5192	?
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- A) 8085
 B) 8109
 C) 8133
 D) 5192

Puzzle 10. What comes next in the sequence?

2	10	2	14	10	15	8	19	18	20	14	24	?
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- A) 27
 B) 26
 C) 23
 D) 25

Answer Key

1. **C) 247**

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

6. **A) 33**

Column sums are triangular numbers: 21, 28, 36.

2. **D) 29**

Row sums are perfect squares: 25, 36, 49.

7. **A) 8048**

4th differences are all 24 (quartic sequence).

3. **A) 264**

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

8. **A) 31**

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

4. **C) 22**

Four interleaved arithmetic series (period 4):

9. **B) 8109**

4th differences are all 24 (quartic sequence).

5. **B) 19**

Four interleaved arithmetic series (period 4):

10. **B) 26**

Four interleaved arithmetic series (period 4):