

Pattern Puzzles – Pack 6

Puzzle 1. What comes next in the sequence?

8	12	9	2	10	20	12	5	12	28	15	8	?
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|-------|-------|-------|-------|
| A) 36 | B) 15 | C) 20 | D) 14 |
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Puzzle 2. What comes next in the sequence?

5	6	2	14	23	40	78	142	?
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|--------|--------|--------|--------|
| A) 261 | B) 262 | C) 260 | D) 298 |
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Puzzle 3. What comes next in the sequence?

15	10	5	8	19	16	11	12	23	22	17	16	?
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|-------|-------|-------|-------|
| A) 26 | B) 29 | C) 27 | D) 28 |
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Puzzle 4. What comes next in the sequence?

10	3	8	12	17	10	16	16	24	17	24	20	?
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|-------|-------|-------|-------|
| A) 25 | B) 32 | C) 24 | D) 31 |
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Puzzle 5. What comes next in the sequence?

5	27	111	323	753	1515	2747	4611	?
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|---------|---------|---------|---------|
| A) 4611 | B) 7269 | C) 7293 | D) 7317 |
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Puzzle 6. What comes next in the sequence?

15	6	4	11	22	12	11	14	29	18	18	17	?
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- A) 35
 B) 37
 C) 36
 D) 24

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

5	5	8
7	6	11
3	10	?

- A) 10
 B) 4
 C) 9
 D) 2

Puzzle 8. What comes next in the sequence?

3	12	6	9	7	18	14	15	11	24	22	21	?
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- A) 17
 B) 15
 C) 30
 D) 16

Puzzle 9. What number replaces the question mark in the grid?

2	1	2
1	2	2
7	12	?

- A) 17
 B) 11
 C) 18
 D) 22

Puzzle 10. What number replaces the question mark in the grid?

2	5	7
6	8	6
2	2	?

- A) 13
 B) 8
 C) 2
 D) 9

Answer Key

1. **D) 14**

Four interleaved arithmetic series (period 4):

6. **C) 36**

Four interleaved arithmetic series (period 4):

2. **A) 261**

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

7. **C) 9**

Column sums are triangular numbers: 15, 21, 28.

3. **C) 27**

Four interleaved arithmetic series (period 4):

8. **B) 15**

Four interleaved arithmetic series (period 4):

4. **D) 31**

Four interleaved arithmetic series (period 4):

9. **A) 17**

Column sums are triangular numbers: 10, 15, 21.

5. **C) 7293**

4th differences are all 24 (quartic sequence).

10. **B) 8**

Column sums are triangular numbers: 10, 15, 21.