

Pattern Puzzles – Pack 41

Puzzle 1. What comes next in the sequence?

5	3	12	2	13	10	20	5	21	17	28	8	?
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A) 29	B) 30	C) 24	D) 28
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Puzzle 2. What comes next in the sequence?

12	6	2	5	14	10	6	11	16	14	10	17	?
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A) 19	B) 23	C) 20	D) 18
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Puzzle 3. What comes next in the sequence?

2	3	6	12	22	41	76	140	?
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A) 257	B) 258	C) 270	D) 259
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Puzzle 4. What number replaces the question mark in the grid?

2	4	6
6	6	3
2	5	?

A) 9	B) 13	C) 6	D) 12
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Puzzle 5. What comes next in the sequence?

3	6	6	17	31	56	106	195	?
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A) 359	B) 357	C) 341	D) 361
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Puzzle 6. What number replaces the question mark in the grid?

1	6	2
8	4	13
6	11	?

- A) 6
 B) 14
 C) 9
 D) 13

Puzzle 7. What comes next in the sequence?

8	34	124	344	784	1558	2804	4684	?
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- A) 7360
 B) 4684
 C) 7408
 D) 7384

Puzzle 8. What comes next in the sequence?

9	51	183	483	1053	2019	3531	5763	?
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- A) 8889
 B) 5763
 C) 8913
 D) 8937

Puzzle 9. What comes next in the sequence?

5	42	165	452	1005	1950	3437	5640	?
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- A) 8781
 B) 8733
 C) 5640
 D) 8757

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

3	2	5
4	12	9
3	1	?

- A) 8
 B) 7
 C) 3
 D) 1

Answer Key

1. **A) 29**
Four interleaved arithmetic series (period 4):
2. **D) 18**
Four interleaved arithmetic series (period 4):
3. **B) 258**
Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+1$.
4. **D) 12**
Column sums are triangular numbers: 10, 15, 21.
5. **A) 359**
Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+2$.
6. **D) 13**
Column sums are triangular numbers: 15, 21, 28.
7. **D) 7384**
4th differences are all 24 (quartic sequence).
8. **C) 8913**
4th differences are all 24 (quartic sequence).
9. **D) 8757**
4th differences are all 24 (quartic sequence).
10. **B) 7**
Column sums are triangular numbers: 10, 15, 21.