

### Pattern Puzzles – Pack 53

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

2	4	1
9	3	25
4	14	?

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**Puzzle 2.** What comes next in the sequence?

14	61	200	509	1090	2069	3596	5845	?
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**Puzzle 3.** What comes next in the sequence?

14	7	9	15	17	11	12	19	20	15	15	23	?
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**Puzzle 4.** What comes next in the sequence?

5	3	11	4	9	7	17	7	13	11	23	10	?
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**Puzzle 5.** What number replaces the question mark in the grid?

5	2	18
3	4	29
4	3	?

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**Puzzle 6.** What comes next in the sequence?

6	7	14	10	11	12	19	18	16	17	24	26	?
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|-------|-------|-------|-------|
| A) 20 | B) 21 | C) 25 | D) 22 |
|-------|-------|-------|-------|

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

1	2	1
1	10	9
8	3	?

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|------|-------|-------|-------|
| A) 5 | B) 12 | C) 11 | D) 14 |
|------|-------|-------|-------|

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

5	2	1
8	17	14
2	2	?

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|-------|-------|-------|------|
| A) 13 | B) 11 | C) 14 | D) 6 |
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**Puzzle 9.** What comes next in the sequence?

7	31	117	331	763	1527	2761	4627	?
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|---------|---------|---------|---------|
| A) 7287 | B) 4627 | C) 7311 | D) 7335 |
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**Puzzle 10.** What comes next in the sequence?

3	8	11	15	6	12	14	18	9	16	17	21	?
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|-------|-------|-------|------|
| A) 20 | B) 12 | C) 13 | D) 7 |
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## Answer Key

1. **D) 2**

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

6. **B) 21**

Four interleaved arithmetic series (period 4):

2. **B) 9014**

4th differences are all 24 (quartic sequence).

7. **C) 11**

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

3. **A) 23**

Four interleaved arithmetic series (period 4):

8. **A) 13**

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

4. **D) 17**

Four interleaved arithmetic series (period 4):

9. **C) 7311**

4th differences are all 24 (quartic sequence).

5. **C) 42**

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

10. **B) 12**

Four interleaved arithmetic series (period 4):