

## Pattern Puzzles – Pack 12

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

5	5	4
2	6	8
4	3	?

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

4	5	6
3	5	9
3	3	?

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**Puzzle 3.** What number replaces the question mark in the grid?

7	5	8
4	8	14
3	2	?

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**Puzzle 4.** What comes next in the sequence?

6	33	126	351	798	1581	2838	?
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**Puzzle 5.** What number replaces the question mark in the grid?

5	8	2
8	8	3
7	4	?

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

3	13	71	237	595	1253	2343	?
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- A) 4045      B) 3433      C) 4021      D) 3997

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

2	3	9
2	3	12
4	5	?

- A) 8      B) 11      C) 14      D) 10

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

2	4	10
5	7	7
8	4	?

- A) 9      B) 13      C) 10      D) 7

**Puzzle 9.** What comes next in the sequence?

5	25	97	281	661	1345	2465	?
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- A) 4177      B) 4201      C) 3585      D) 4153

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

3	5	11
7	7	8
6	2	?

- A) 16      B) 17      C) 14      D) 20

## Answer Key

1. **D) 11**

Row sums form arithmetic sequence: 14, 16, 18.

6. **C) 4021**

4th diffs: 24 (constant – quartic sequence).

2. **D) 13**

Row sums form arithmetic sequence: 15, 17, 19.

7. **B) 11**

Row sums form arithmetic sequence: 14, 17, 20.

3. **A) 27**

Row sums form arithmetic sequence: 20, 26, 32.

8. **C) 10**

Row sums form arithmetic sequence: 16, 19, 22.

4. **C) 4731**

4th diffs: 24 (constant – quartic sequence).

9. **A) 4177**

4th diffs: 24 (constant – quartic sequence).

5. **C) 12**

Row sums form arithmetic sequence: 15, 19, 23.

10. **B) 17**

Row sums form arithmetic sequence: 19, 22, 25.