

### Pattern Puzzles – Pack 14

**Puzzle 1.** What comes next in the sequence?

4	25	108	319	748	1509	2740	?
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- A) 3971      B) 4579      C) 4603      D) 4627

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

3	5	13
6	2	15
7	4	?

- A) 14      B) 13      C) 16      D) 12

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

6	8	9
7	4	16
8	4	?

- A) 18      B) 19      C) 15      D) 23

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

5	34	129	356	805	1590	2849	?
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- A) 4108      B) 4744      C) 4720      D) 4768

**Puzzle 5.** What comes next in the sequence?

6	38	146	402	902	1766	3138	?
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- A) 5210      B) 5186      C) 4510      D) 5162

### Pattern Puzzles – Pack 14

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

2	15	76	245	606	1267	2360	?
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- A) 4017      B) 3453      C) 4065      D) 4041

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

3	5	10
8	5	9
5	5	?

- A) 15      B) 12      C) 20      D) 16

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

6	7	8
2	4	18
8	7	?

- A) 15      B) 9      C) 12      D) 11

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

7	40	149	406	907	1772	3145	?
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- A) 5218      B) 5194      C) 4518      D) 5170

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

2	2	21
4	3	22
3	5	?

- A) 29      B) 24      C) 25      D) 21

## Answer Key

1. **C) 4603**

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

6. **D) 4041**

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

2. **A) 14**

Row sums form arithmetic sequence: 21, 23, 25.

7. **D) 16**

Row sums form arithmetic sequence: 18, 22, 26.

3. **B) 19**

Row sums form arithmetic sequence: 23, 27, 31.

8. **C) 12**

Row sums form arithmetic sequence: 21, 24, 27.

4. **B) 4744**

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

9. **B) 5194**

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

5. **B) 5186**

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

10. **C) 25**

Row sums form arithmetic sequence: 25, 29, 33.