

### Pattern Puzzles – Pack 8

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

6	3	5
2	8	10
3	7	?

- A) 10     
  B) 15     
  C) 22     
  D) 16

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

2	2	21
5	6	17
5	7	?

- A) 22     
  B) 19     
  C) 18     
  D) 16

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

2	7	9
6	4	14
6	7	?

- A) 11     
  B) 17     
  C) 16     
  D) 23

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

5	31	129	371	853	1695	3041	?
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- A) 5059     
  B) 5083     
  C) 4387     
  D) 5035

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

2	13	72	239	598	1257	2348	?
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- A) 4003     
  B) 4051     
  C) 4027     
  D) 3439

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

5	25	99	287	673	1365	2495	?
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- A) 3625      B) 4243      C) 4195      D) 4219

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

6	2	4
5	2	9
2	5	?

- A) 9      B) 13      C) 17      D) 12

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

3	5	15
4	2	21
7	3	?

- A) 25      B) 20      C) 21      D) 17

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

2	20	90	272	650	1332	2450	?
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- A) 4184      B) 4160      C) 4136      D) 3568

**Puzzle 10.** What comes next in the sequence?

3	34	141	396	895	1758	3129	?
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- A) 5152      B) 5200      C) 4500      D) 5176

## Answer Key

1. **D) 16**

Row sums form arithmetic sequence: 14, 20, 26.

6. **D) 4219**

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

2. **B) 19**

Row sums form arithmetic sequence: 25, 28, 31.

7. **B) 13**

Row sums form arithmetic sequence: 12, 16, 20.

3. **B) 17**

Row sums form arithmetic sequence: 18, 24, 30.

8. **C) 21**

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

4. **A) 5059**

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

9. **B) 4160**

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

5. **C) 4027**

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

10. **D) 5176**

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