

## Pattern Puzzles – Pack 11

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

6	36	142	396	894	1756	3126	?
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- A) 5196      B) 5148      C) 5172      D) 4496

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

2	16	80	254	622	1292	2396	?
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- A) 3500      B) 4066      C) 4090      D) 4114

**Puzzle 3.** What comes next in the sequence?

10	46	160	424	934	1810	3196	?
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- A) 5284      B) 5260      C) 5236      D) 4582

**Puzzle 4.** What number replaces the question mark in the grid?

6	4	3
2	8	7
5	7	?

- A) 9      B) 8      C) 13      D) 5

**Puzzle 5.** What number replaces the question mark in the grid?

7	6	2
5	4	10
8	7	?

- A) 7      B) 4      C) 12      D) 8

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

6	21	86	261	630	1301	2406	?
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A) 4101	B) 4125	C) 3511	D) 4077
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**Puzzle 7.** What comes next in the sequence?

5	29	117	335	773	1545	2789	?
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A) 4643	B) 4667	C) 4033	D) 4691
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**Puzzle 8.** What comes next in the sequence?

4	23	96	283	668	1359	2488	?
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A) 3617	B) 4211	C) 4235	D) 4187
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**Puzzle 9.** What number replaces the question mark in the grid?

4	2	15
3	8	14
8	5	?

A) 12	B) 16	C) 20	D) 15
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**Puzzle 10.** What comes next in the sequence?

4	34	140	394	892	1754	3124	?
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A) 5146	B) 4494	C) 5194	D) 5170
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## Answer Key

1. **C) 5172**  
4th diffs: 24 (constant – quartic sequence).
2. **C) 4090**  
4th diffs: 24 (constant – quartic sequence).
3. **B) 5260**  
4th diffs: 24 (constant – quartic sequence).
4. **A) 9**  
Row sums form arithmetic sequence: 13, 17, 21.
5. **D) 8**  
Row sums form arithmetic sequence: 15, 19, 23.
6. **A) 4101**  
4th diffs: 24 (constant – quartic sequence).
7. **B) 4667**  
4th diffs: 24 (constant – quartic sequence).
8. **B) 4211**  
4th diffs: 24 (constant – quartic sequence).
9. **B) 16**  
Row sums form arithmetic sequence: 21, 25, 29.
10. **D) 5170**  
4th diffs: 24 (constant – quartic sequence).