

Pattern Puzzles – Pack 36

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

6	5	9
8	4	11
4	2	?

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Puzzle 2. What comes next in the sequence?

3	32	135	384	875	1728	3087	?
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Puzzle 3. What comes next in the sequence?

10	44	154	412	914	1780	3154	?
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Puzzle 4. What number replaces the question mark in the grid?

5	2	12
4	2	19
4	4	?

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

4	2	17
2	8	16
6	2	?

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Puzzle 6. What comes next in the sequence?

6	31	120	339	778	1551	2796	?
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- A) 4651 B) 4675 C) 4699 D) 4041

Puzzle 7. What comes next in the sequence?

3	29	121	345	791	1573	2829	?
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- A) 4085 B) 4697 C) 4745 D) 4721

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

2	7	11
4	3	16
5	8	?

- A) 16 B) 13 C) 12 D) 10

Puzzle 9. What comes next in the sequence?

4	16	76	244	604	1264	2356	?
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- A) 3448 B) 4036 C) 4012 D) 4060

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

5	4	15
2	2	25
7	8	?

- A) 24 B) 19 C) 18 D) 14

Answer Key

1. **A) 20**

Row sums form arithmetic sequence: 20, 23, 26.

6. **B) 4675**

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

2. **D) 5120**

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

7. **D) 4721**

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

3. **D) 5204**

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

8. **B) 13**

Row sums form arithmetic sequence: 20, 23, 26.

4. **D) 23**

Row sums form arithmetic sequence: 19, 25, 31.

9. **B) 4036**

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

5. **B) 21**

Row sums form arithmetic sequence: 23, 26, 29.

10. **B) 19**

Row sums form arithmetic sequence: 24, 29, 34.