

## Pattern Puzzles – Pack 23

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

4	11	21	34	50	69	?
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A) 91	B) 84	C) 90	D) 94
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**Puzzle 2.** What number replaces the question mark in the grid?

3	6	12
3	9	27
1	3	?

A) 12	B) 7	C) 9	D) 6
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**Puzzle 3.** What comes next in the sequence?

8	16	26	38	52	68	?
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A) 84	B) 71	C) 88	D) 86
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**Puzzle 4.** What comes next in the sequence?

4	15	48	147	444	1335	?
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A) 4008	B) 4005	C) 1338	D) 4009
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**Puzzle 5.** What comes next in the sequence?

6	15	14	23	22	31	?
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A) 39	B) 30	C) 36	D) 31
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**Puzzle 6.** What number replaces the question mark in the grid?

4	8	16
4	16	64
4	8	?

- A) 16     
  B) 18     
  C) 10     
  D) 64

**Puzzle 7.** What comes next in the sequence?

14	25	33	44	52	63	71	?
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- A) 79     
  B) 82     
  C) 90     
  D) 81

**Puzzle 8.** What comes next in the sequence?

20	28	39	47	58	66	77	?
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- A) 96     
  B) 84     
  C) 85     
  D) 88

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

7	14	25	40	59	82	?
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- A) 109     
  B) 95     
  C) 113     
  D) 105

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

2	6	18
1	2	4
2	6	?

- A) 18     
  B) 9     
  C) 16     
  D) 8

## Answer Key

1. **A) 91**

Formula:  $3 \times n(n+1)/2 + 1n$ .

6. **A) 16**

Each row is a geometric sequence. Row 3 ratio:  $\times 2$ .

2. **C) 9**

Each row is a geometric sequence. Row 3 ratio:  $\times 3$ .

7. **B) 82**

Sequence: 14, 25, 33, 44, 52, 63, 71, ...

3. **D) 86**

Sequence: 8, 16, 26, 38, 52, 68, ...

8. **C) 85**

Sequence: 20, 28, 39, 47, 58, 66, 77, ...

4. **A) 4008**

Sequence: 4, 15, 48, 147, 444, 1335, ...

9. **A) 109**

Sequence: 7, 14, 25, 40, 59, 82, ...

5. **B) 30**

Two interleaved series – odd:  $+8$ , even:  $+8$ .

10. **A) 18**

Each row is a geometric sequence. Row 3 ratio:  $\times 3$ .