

Pattern Puzzles – Pack 3

Puzzle 1. What comes next in the sequence?

5	13	29	61	125	253	?
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- A) 506 B) 509 C) 510 D) 256

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

4	12	36
1	3	9
3	6	?

- A) 12 B) 18 C) 8 D) 27

Puzzle 3. What comes next in the sequence?

19	10	23	14	27	18	?
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- A) 38 B) 32 C) 22 D) 31

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

2	4	8
4	8	16
4	12	?

- A) 36 B) 24 C) 16 D) 15

Puzzle 5. What comes next in the sequence?

10	19	32	49	70	95	?
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- A) 128 B) 145 C) 124 D) 120

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Puzzle 6. What comes next in the sequence?

8	21	39	62	90	123	?
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A) 161	B) 166	C) 158	D) 140
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Puzzle 7. What number replaces the question mark in the grid?

1	3	9
1	4	16
3	9	?

A) 12	B) 27	C) 48	D) 32
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Puzzle 8. What comes next in the sequence?

5	15	35	75	155	315	?
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A) 630	B) 635	C) 320	D) 636
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Puzzle 9. What comes next in the sequence?

1	4	10	22	46	94	?
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A) 96	B) 188	C) 191	D) 190
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Puzzle 10. What comes next in the sequence?

29	40	44	55	59	70	74	?
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A) 78	B) 84	C) 89	D) 85
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Answer Key

1. **B) 509**

Sequence: 5, 13, 29, 61, 125, 253, ...

6. **A) 161**

Formula: $5 \times n(n+1)/2 + 3n$.

2. **A) 12**

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

7. **B) 27**

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

3. **D) 31**

Two interleaved series – odd: +4, even: +4.

8. **B) 635**

Sequence: 5, 15, 35, 75, 155, 315, ...

4. **A) 36**

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

9. **D) 190**

Sequence: 1, 4, 10, 22, 46, 94, ...

5. **C) 124**

Sequence: 10, 19, 32, 49, 70, 95, ...

10. **D) 85**

Sequence: 29, 40, 44, 55, 59, 70, 74, ...