

Pattern Puzzles – Pack 26

Puzzle 1. What comes next in the sequence?

3	3	5	11	19	35	65	119	?
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|--------|--------|--------|--------|
| A) 263 | B) 154 | C) 219 | D) 184 |
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Puzzle 2. What comes next in the sequence?

10	20	15	30	25	50	45	90	?
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| A) 181 | B) 90 | C) 85 | D) 180 |
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Puzzle 3. What comes next in the sequence?

10	14	22	38	70	134	262	?
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| A) 467 | B) 518 | C) 522 | D) 390 |
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Puzzle 4. What comes next in the sequence?

8	3	6	16	9	14	24	15	?
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| A) 21 | B) 22 | C) 32 | D) 23 |
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Puzzle 5. What comes next in the sequence?

13	9	12	18	13	19	23	17	?
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| A) 26 | B) 27 | C) 28 | D) 21 |
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Puzzle 6. What comes next in the sequence?

2	4	1	7	12	20	39	71	?
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A) 110	B) 115	C) 91	D) 130
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Puzzle 7. What comes next in the sequence?

12	36	32	96	92	276	272	816	?
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A) 2449	B) 816	C) 812	D) 2448
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Puzzle 8. What comes next in the sequence?

6	23	58	117	206	331	498	?
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A) 719	B) 665	C) 707	D) 713
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Puzzle 9. What comes next in the sequence?

16	32	21	42	31	62	51	102	?
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A) 204	B) 91	C) 205	D) 102
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Puzzle 10. What comes next in the sequence?

4	6	12	30	84	246	732	?
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A) 2190	B) 1218	C) 2192	D) 1704
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Answer Key

1. **C) 219**

Rule: $a(n) = a(n-1) + a(n-2) + a(n-3)$
(tribonacci).

6. **D) 130**

Rule: $a(n) = a(n-1) + a(n-2) + a(n-3)$
(tribonacci).

2. **D) 180**

Alternating: $\times 2$ (odd steps), -5 (even steps).

7. **D) 2448**

Alternating: $\times 3$ (odd steps), -4 (even steps).

3. **B) 518**

Differences form geometric sequence ($\times 2$): 4, 8, 16, 32, 64, 128, 256.

8. **D) 713**

1st diffs: 17, 35, 59, 89, 125, 167.

4. **B) 22**

Three interleaved arithmetic series (period 3).

9. **A) 204**

Alternating: $\times 2$ (odd steps), -11 (even steps).

5. **A) 26**

Three interleaved arithmetic series (period 3).

10. **A) 2190**

Differences form geometric sequence ($\times 3$): 2, 6, 18, 54, 162, 486, 1458.