

Pattern Puzzles – Pack 45

Puzzle 1. What comes next in the sequence?

5	15	14	12	17	20	19	19	?
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- A) 27
 B) 26
 C) 23
 D) 21

Puzzle 2. What comes next in the sequence?

5	7	13	31	85	247	733	?
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- A) 1219
 B) 2193
 C) 1705
 D) 2191

Puzzle 3. What comes next in the sequence?

15	34	71	132	223	350	519	?
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- A) 736
 B) 730
 C) 742
 D) 688

Puzzle 4. What comes next in the sequence?

15	30	18	36	24	48	36	72	?
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- A) 60
 B) 72
 C) 145
 D) 144

Puzzle 5. What comes next in the sequence?

6	15	15	14	22	21	22	29	?
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- A) 30
 B) 28
 C) 27
 D) 36

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Puzzle 6. What comes next in the sequence?

5	4	5	14	23	42	79	144	?
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|--------|--------|--------|--------|
| A) 186 | B) 265 | C) 223 | D) 263 |
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Puzzle 7. What comes next in the sequence?

8	16	38	80	148	248	386	?
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|--------|--------|--------|--------|
| A) 562 | B) 524 | C) 574 | D) 568 |
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Puzzle 8. What comes next in the sequence?

1	1	1	3	5	9	17	31	?
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|-------|-------|-------|-------|
| A) 40 | B) 48 | C) 65 | D) 57 |
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Puzzle 9. What comes next in the sequence?

18	36	24	48	36	72	60	120	?
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|--------|--------|--------|--------|
| A) 120 | B) 240 | C) 108 | D) 241 |
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Puzzle 10. What comes next in the sequence?

5	4	3	12	19	34	65	118	?
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|--------|--------|--------|--------|
| A) 152 | B) 173 | C) 217 | D) 183 |
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Answer Key

1. **B) 26**

Three interleaved arithmetic series (period 3).

2. **D) 2191**

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

3. **A) 736**

1st diffs: 19, 37, 61, 91, 127, 169.

4. **D) 144**

Alternating: $\times 2$ (odd steps), -12 (even steps).

5. **C) 27**

Three interleaved arithmetic series (period 3).

6. **B) 265**

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

7. **D) 568**

1st diffs: 8, 22, 42, 68, 100, 138.

8. **D) 57**

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

9. **B) 240**

Alternating: $\times 2$ (odd steps), -12 (even steps).

10. **C) 217**

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