

## Pattern Puzzles – Pack 57

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

9	18	7	14	3	6	-5	-10	?
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A) -18	B) -19	C) -17	D) -20
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**Puzzle 2.** What comes next in the sequence?

13	8	15	20	12	19	27	16	?
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A) 20	B) 24	C) 34	D) 23
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**Puzzle 3.** What comes next in the sequence?

12	14	7	15	21	13	18	28	?
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A) 19	B) 20	C) 21	D) 35
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**Puzzle 4.** What comes next in the sequence?

8	16	7	14	5	10	1	2	?
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A) 8	B) 5	C) 4	D) 2
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**Puzzle 5.** What comes next in the sequence?

3	4	4	11	19	34	64	117	?
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A) 151	B) 215	C) 202	D) 181
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**Puzzle 6.** What comes next in the sequence?

7	17	41	85	155	257	397	?
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|--------|--------|--------|--------|
| A) 581 | B) 537 | C) 575 | D) 587 |
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**Puzzle 7.** What comes next in the sequence?

1	4	2	7	13	22	42	77	?
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|--------|-------|--------|--------|
| A) 119 | B) 99 | C) 113 | D) 141 |
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**Puzzle 8.** What comes next in the sequence?

3	2	5	10	17	32	59	108	?
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|--------|--------|--------|--------|
| A) 199 | B) 167 | C) 187 | D) 140 |
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**Puzzle 9.** What comes next in the sequence?

8	24	12	36	24	72	60	180	?
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|--------|--------|--------|--------|
| A) 168 | B) 540 | C) 180 | D) 541 |
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**Puzzle 10.** What comes next in the sequence?

3	6	5	7	9	12	11	12	?
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|-------|-------|-------|-------|
| A) 20 | B) 19 | C) 15 | D) 18 |
|-------|-------|-------|-------|

## Answer Key

1. **D) -20**

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

2. **D) 23**

Three interleaved arithmetic series (period 3).

3. **A) 19**

Three interleaved arithmetic series (period 3).

4. **C) 4**

Alternating:  $\times 2$  (odd steps),  $-9$  (even steps).

5. **B) 215**

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

6. **A) 581**

1st diffs: 10, 24, 44, 70, 102, 140.

7. **D) 141**

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

8. **A) 199**

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

9. **B) 540**

Alternating:  $\times 3$  (odd steps),  $-12$  (even steps).

10. **B) 19**

Three interleaved arithmetic series (period 3).