

### Pattern Puzzles – Pack 53

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

11	2	3	19	4	10	27	6	?
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|-------|-------|-------|------|
| A) 35 | B) 18 | C) 17 | D) 8 |
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**Puzzle 2.** What comes next in the sequence?

9	21	49	99	177	289	441	?
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|--------|--------|--------|--------|
| A) 593 | B) 639 | C) 645 | D) 633 |
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**Puzzle 3.** What comes next in the sequence?

2	2	1	5	8	14	27	49	?
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|-------|-------|-------|-------|
| A) 76 | B) 79 | C) 63 | D) 90 |
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**Puzzle 4.** What comes next in the sequence?

11	2	12	15	8	20	19	14	?
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|-------|-------|-------|-------|
| A) 20 | B) 23 | C) 29 | D) 28 |
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**Puzzle 5.** What comes next in the sequence?

4	1	2	7	10	19	36	65	?
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|--------|--------|--------|-------|
| A) 120 | B) 101 | C) 110 | D) 84 |
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**Puzzle 6.** What comes next in the sequence?

10	14	26	62	170	494	1466	?
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| A) 2438 | B) 4382 | C) 4386 | D) 3410 |
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**Puzzle 7.** What comes next in the sequence?

9	18	8	16	6	12	2	4	?
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|------|------|------|------|
| A) 4 | B) 8 | C) 9 | D) 3 |
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**Puzzle 8.** What comes next in the sequence?

14	18	30	66	174	498	1470	?
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|---------|---------|---------|---------|
| A) 3414 | B) 4386 | C) 2442 | D) 4390 |
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**Puzzle 9.** What comes next in the sequence?

14	28	17	34	23	46	35	70	?
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|--------|-------|--------|-------|
| A) 140 | B) 70 | C) 141 | D) 59 |
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**Puzzle 10.** What comes next in the sequence?

9	25	59	117	205	329	495	?
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|--------|--------|--------|--------|
| A) 703 | B) 715 | C) 661 | D) 709 |
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## Answer Key

1. **C) 17**

Three interleaved arithmetic series (period 3).

6. **B) 4382**

Differences form geometric sequence ( $\times 3$ ): 4, 12, 36, 108, 324, 972, 2916.

2. **B) 639**

1st diffs: 12, 28, 50, 78, 112, 152.

7. **B) 8**

Alternating:  $\times 2$  (odd steps),  $-10$  (even steps).

3. **D) 90**

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

8. **B) 4386**

Differences form geometric sequence ( $\times 3$ ): 4, 12, 36, 108, 324, 972, 2916.

4. **D) 28**

Three interleaved arithmetic series (period 3).

9. **A) 140**

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

5. **A) 120**

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

10. **D) 709**

1st diffs: 16, 34, 58, 88, 124, 166.