

Pattern Puzzles – Pack 17

Puzzle 1. What comes next in the sequence?

11	6	15	14	10	19	17	14	?
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- A) 23
 B) 24
 C) 20
 D) 18

Puzzle 2. What comes next in the sequence?

3	12	30	66	138	282	?
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- A) 282
 B) 570
 C) 569
 D) 564

Puzzle 3. What comes next in the sequence?

9	18	15	30	27	54	51	102	?
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- A) 204
 B) 205
 C) 102
 D) 99

Puzzle 4. What comes next in the sequence?

1	5	5	11	21	37	69	127	?
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- A) 212
 B) 164
 C) 196
 D) 233

Puzzle 5. What comes next in the sequence?

17	51	39	117	105	315	303	909	?
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- A) 2728
 B) 2727
 C) 897
 D) 909

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Puzzle 6. What comes next in the sequence?

7 19 43 91 187 379 ?

- A) 758 B) 763 C) 379 D) 762

Puzzle 7. What comes next in the sequence?

8 25 60 119 208 333 500 ?

- A) 667 B) 721 C) 715 D) 709

Puzzle 8. What comes next in the sequence?

10 20 44 88 158 260 400 ?

- A) 540 B) 584 C) 590 D) 578

Puzzle 9. What comes next in the sequence?

6 10 9 12 13 11 18 16 ?

- A) 24 B) 13 C) 14 D) 19

Puzzle 10. What comes next in the sequence?

2 6 14 30 62 126 ?

- A) 126 B) 252 C) 254 D) 253

Answer Key

1. **A) 23**

Three interleaved arithmetic series (period 3).

6. **B) 763**

Rule: $a(n) = 2 \times a(n-1) + 5$.

2. **B) 570**

Rule: $a(n) = 2 \times a(n-1) + 6$.

7. **C) 715**

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

3. **A) 204**

Alternating: $\times 2$ (odd steps), -3 (even steps).

8. **B) 584**

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

4. **D) 233**

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

9. **B) 13**

Three interleaved arithmetic series (period 3).

5. **B) 2727**

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

10. **C) 254**

Rule: $a(n) = 2 \times a(n-1) + 2$.