

Pattern Puzzles – Pack 21

Puzzle 1. What comes next in the sequence?

6 20 52 108 194 316 480 ?

- A) 692 B) 686 C) 644 D) 698

Puzzle 2. What comes next in the sequence?

9 27 23 69 65 195 191 573 ?

- A) 1720 B) 573 C) 569 D) 1719

Puzzle 3. What comes next in the sequence?

11 9 11 15 17 16 19 25 ?

- A) 23 B) 22 C) 33 D) 21

Puzzle 4. What comes next in the sequence?

2 4 8 16 32 64 128 ?

- A) 258 B) 249 C) 256 D) 192

Puzzle 5. What comes next in the sequence?

20 60 54 162 156 468 462 1386 ?

- A) 4158 B) 4159 C) 1380 D) 1386

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Puzzle 6. What comes next in the sequence?

11	14	20	32	56	104	200	?
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| A) 379 | B) 395 | C) 392 | D) 296 |
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Puzzle 7. What comes next in the sequence?

15	14	15	20	21	21	25	28	?
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| A) 35 | B) 28 | C) 30 | D) 27 |
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Puzzle 8. What comes next in the sequence?

7	18	43	88	159	262	403	?
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| A) 594 | B) 582 | C) 588 | D) 544 |
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Puzzle 9. What comes next in the sequence?

16	48	36	108	96	288	276	828	?
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| A) 2484 | B) 816 | C) 828 | D) 2485 |
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Puzzle 10. What comes next in the sequence?

4	5	2	11	18	31	60	109	?
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| A) 140 | B) 169 | C) 200 | D) 240 |
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Answer Key

1. **A) 692**

1st diffs: 14, 32, 56, 86, 122, 164.

2. **D) 1719**

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

3. **D) 21**

Three interleaved arithmetic series (period 3).

4. **C) 256**

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

5. **A) 4158**

Alternating: $\times 3$ (odd steps), -6 (even steps).

6. **C) 392**

Differences form geometric sequence ($\times 2$): 3, 6, 12, 24, 48, 96, 192.

7. **D) 27**

Three interleaved arithmetic series (period 3).

8. **C) 588**

1st diffs: 11, 25, 45, 71, 103, 141.

9. **A) 2484**

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

10. **C) 200**

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