

Pattern Puzzles – Pack 36

Puzzle 1. What comes next in the sequence?

6	15	36	75	138	231	360	?
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A) 489	B) 537	C) 525	D) 531
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Puzzle 2. What comes next in the sequence?

7	14	10	12	17	14	17	20	?
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A) 19	B) 23	C) 18	D) 22
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Puzzle 3. What comes next in the sequence?

9	26	59	114	197	314	471	?
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A) 680	B) 668	C) 674	D) 628
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Puzzle 4. What comes next in the sequence?

3	11	33	75	143	243	381	?
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A) 519	B) 563	C) 557	D) 569
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Puzzle 5. What comes next in the sequence?

15	17	21	29	45	77	141	?
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A) 271	B) 220	C) 269	D) 205
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Puzzle 6. What comes next in the sequence?

12	25	52	99	172	277	420	?
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| A) 601 | B) 613 | C) 563 | D) 607 |
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Puzzle 7. What comes next in the sequence?

0	6	24	60	120	210	336	?
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|--------|--------|--------|--------|
| A) 498 | B) 510 | C) 462 | D) 504 |
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Puzzle 8. What comes next in the sequence?

3	1	5	9	15	29	53	97	?
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| A) 179 | B) 212 | C) 150 | D) 126 |
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Puzzle 9. What comes next in the sequence?

15	3	11	19	8	15	23	13	?
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| A) 20 | B) 18 | C) 27 | D) 19 |
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Puzzle 10. What comes next in the sequence?

13	8	4	18	12	10	23	16	?
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| A) 17 | B) 16 | C) 20 | D) 28 |
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Answer Key

1. **D) 531**

1st diffs: 9, 21, 39, 63, 93, 129.

6. **D) 607**

1st diffs: 13, 27, 47, 73, 105, 143.

2. **C) 18**

Three interleaved arithmetic series (period 3).

7. **D) 504**

1st diffs: 6, 18, 36, 60, 90, 126.

3. **C) 674**

1st diffs: 17, 33, 55, 83, 117, 157.

8. **A) 179**

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

4. **B) 563**

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

9. **D) 19**

Three interleaved arithmetic series (period 3).

5. **C) 269**

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

10. **B) 16**

Three interleaved arithmetic series (period 3).