

Pattern Puzzles – Pack 30

Puzzle 1. What comes next in the sequence?

4	5	3	12	20	35	67	122	?
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|--------|--------|--------|--------|
| A) 230 | B) 189 | C) 157 | D) 224 |
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Puzzle 2. What comes next in the sequence?

2	2	5	9	16	30	55	101	?
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| A) 131 | B) 186 | C) 211 | D) 156 |
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Puzzle 3. What comes next in the sequence?

3	10	29	66	127	218	345	?
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| A) 514 | B) 520 | C) 508 | D) 472 |
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Puzzle 4. What comes next in the sequence?

8	18	42	86	156	258	398	?
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| A) 588 | B) 582 | C) 576 | D) 538 |
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Puzzle 5. What comes next in the sequence?

11	8	8	15	16	14	19	24	?
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| A) 21 | B) 23 | C) 20 | D) 32 |
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Puzzle 6. What comes next in the sequence?

4	7	13	25	49	97	193	?
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|--------|--------|--------|--------|
| A) 388 | B) 289 | C) 385 | D) 432 |
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Puzzle 7. What comes next in the sequence?

5	3	3	11	17	31	59	107	?
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| A) 138 | B) 186 | C) 166 | D) 197 |
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Puzzle 8. What comes next in the sequence?

4	13	34	73	136	229	358	?
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| A) 487 | B) 535 | C) 529 | D) 523 |
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Puzzle 9. What comes next in the sequence?

3	4	5	12	21	38	71	130	?
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| A) 168 | B) 239 | C) 276 | D) 201 |
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Puzzle 10. What comes next in the sequence?

11	23	49	95	167	271	413	?
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| A) 599 | B) 605 | C) 593 | D) 555 |
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Answer Key

1. **D) 224**

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

2. **B) 186**

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

3. **A) 514**

1st diffs: 7, 19, 37, 61, 91, 127.

4. **B) 582**

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

5. **C) 20**

Three interleaved arithmetic series (period 3).

6. **C) 385**

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

7. **D) 197**

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

8. **C) 529**

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

9. **B) 239**

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

10. **A) 599**

1st diffs: 12, 26, 46, 72, 104, 142.