

## Pattern Puzzles – Pack 32

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

15	18	24	36	60	108	204	?
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|--------|--------|--------|--------|
| A) 300 | B) 399 | C) 396 | D) 443 |
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**Puzzle 2.** What comes next in the sequence?

7	12	29	64	123	212	337	?
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| A) 462 | B) 504 | C) 510 | D) 498 |
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**Puzzle 3.** What comes next in the sequence?

4	5	8	17	44	125	368	?
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| A) 1098 | B) 611 | C) 1097 | D) 854 |
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**Puzzle 4.** What comes next in the sequence?

2	11	13	4	14	15	6	17	?
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|-------|-------|------|-------|
| A) 20 | B) 17 | C) 8 | D) 18 |
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**Puzzle 5.** What comes next in the sequence?

4	10	22	46	94	190	?
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|--------|--------|--------|--------|
| A) 190 | B) 380 | C) 381 | D) 382 |
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**Puzzle 6.** What comes next in the sequence?

4	5	15	7	10	17	10	15	?
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|-------|-------|-------|-------|
| A) 20 | B) 21 | C) 13 | D) 19 |
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**Puzzle 7.** What comes next in the sequence?

3	1	3	7	11	21	39	71	?
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|--------|--------|-------|--------|
| A) 110 | B) 131 | C) 92 | D) 138 |
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**Puzzle 8.** What comes next in the sequence?

3	5	5	13	23	41	77	141	?
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|--------|--------|--------|--------|
| A) 182 | B) 259 | C) 274 | D) 218 |
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**Puzzle 9.** What comes next in the sequence?

11	22	17	34	29	58	53	106	?
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|--------|--------|--------|--------|
| A) 106 | B) 212 | C) 101 | D) 213 |
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**Puzzle 10.** What comes next in the sequence?

5	7	15	11	14	18	17	21	?
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|-------|-------|-------|-------|
| A) 28 | B) 21 | C) 22 | D) 23 |
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## Answer Key

1. **C) 396**  
Differences form geometric sequence ( $\times 2$ ): 3, 6, 12, 24, 48, 96, 192.
2. **B) 504**  
1st diffs: 5, 17, 35, 59, 89, 125.
3. **C) 1097**  
Differences form geometric sequence ( $\times 3$ ): 1, 3, 9, 27, 81, 243, 729.
4. **B) 17**  
Three interleaved arithmetic series (period 3).
5. **D) 382**  
Rule:  $a(n) = 2 \times a(n-1) + 2$ .
6. **D) 19**  
Three interleaved arithmetic series (period 3).
7. **B) 131**  
Rule:  $a(n) = a(n-1) + a(n-2) + a(n-3)$   
(tribonacci).
8. **B) 259**  
Rule:  $a(n) = a(n-1) + a(n-2) + a(n-3)$   
(tribonacci).
9. **B) 212**  
Alternating:  $\times 2$  (odd steps),  $-5$  (even steps).
10. **B) 21**  
Three interleaved arithmetic series (period 3).