

Pattern Puzzles – Pack 14

Puzzle 1. What comes next in the sequence?

1	3	5	9	17	31	57	105	?
---	---	---	---	----	----	----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 176 | B) 193 | C) 136 | D) 162 |
|--------|--------|--------|--------|

Puzzle 2. What comes next in the sequence?

3	10	24	52	108	220	?
---	----	----	----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 444 | B) 220 | C) 443 | D) 440 |
|--------|--------|--------|--------|

Puzzle 3. What comes next in the sequence?

10	30	20	60	50	150	140	420	?
----	----	----	----	----	-----	-----	-----	---

- | | | | |
|--------|--------|---------|---------|
| A) 420 | B) 410 | C) 1261 | D) 1260 |
|--------|--------|---------|---------|

Puzzle 4. What comes next in the sequence?

5	4	1	10	15	26	51	92	?
---	---	---	----	----	----	----	----	---

- | | | | |
|--------|--------|--------|--------|
| A) 169 | B) 143 | C) 118 | D) 167 |
|--------|--------|--------|--------|

Puzzle 5. What comes next in the sequence?

6	17	39	83	171	347	?
---	----	----	----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 347 | B) 694 | C) 698 | D) 699 |
|--------|--------|--------|--------|

Pattern Puzzles – Pack 14

Puzzle 6. What comes next in the sequence?

5	6	3	11	11	7	17	16	?
---	---	---	----	----	---	----	----	---

- A) 21 B) 12 C) 23 D) 11

Puzzle 7. What comes next in the sequence?

10	22	50	100	178	290	442	?
----	----	----	-----	-----	-----	-----	---

- A) 646 B) 634 C) 594 D) 640

Puzzle 8. What comes next in the sequence?

7	6	3	14	12	5	21	18	?
---	---	---	----	----	---	----	----	---

- A) 7 B) 28 C) 24 D) 8

Puzzle 9. What comes next in the sequence?

4	3	4	11	18	33	62	113	?
---	---	---	----	----	----	----	-----	---

- A) 146 B) 208 C) 175 D) 234

Puzzle 10. What comes next in the sequence?

13	2	12	17	5	14	21	8	?
----	---	----	----	---	----	----	---	---

- A) 17 B) 11 C) 25 D) 16

Answer Key

1. **B) 193**

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

2. **A) 444**

Rule: $a(n) = 2 \times a(n-1) + 4$.

3. **D) 1260**

Alternating: $\times 3$ (odd steps), -10 (even steps).

4. **A) 169**

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

5. **D) 699**

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

6. **D) 11**

Three interleaved arithmetic series (period 3).

7. **D) 640**

1st diffs: 12, 28, 50, 78, 112, 152.

8. **A) 7**

Three interleaved arithmetic series (period 3).

9. **B) 208**

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

10. **D) 16**

Three interleaved arithmetic series (period 3).