

Pattern Puzzles – Pack 47

Puzzle 1. What comes next in the sequence?

1	2	3	6	11	20	37	68	?
---	---	---	---	----	----	----	----	---

- | | | | |
|--------|--------|--------|-------|
| A) 105 | B) 125 | C) 142 | D) 88 |
|--------|--------|--------|-------|

Puzzle 2. What comes next in the sequence?

9	18	41	84	153	254	393	?
---	----	----	----	-----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 576 | B) 532 | C) 582 | D) 570 |
|--------|--------|--------|--------|

Puzzle 3. What comes next in the sequence?

15	19	27	43	75	139	267	?
----	----	----	----	----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 395 | B) 527 | C) 523 | D) 595 |
|--------|--------|--------|--------|

Puzzle 4. What comes next in the sequence?

4	4	1	9	14	24	47	85	?
---	---	---	---	----	----	----	----	---

- | | | | |
|--------|--------|--------|--------|
| A) 167 | B) 156 | C) 132 | D) 109 |
|--------|--------|--------|--------|

Puzzle 5. What comes next in the sequence?

12	36	29	87	80	240	233	699	?
----	----	----	----	----	-----	-----	-----	---

- | | | | |
|---------|--------|--------|---------|
| A) 2097 | B) 692 | C) 699 | D) 2098 |
|---------|--------|--------|---------|

Pattern Puzzles – Pack 47

Puzzle 6. What comes next in the sequence?

3	5	11	29	83	245	731	?
---	---	----	----	----	-----	-----	---

- | | | | |
|---------|---------|---------|---------|
| A) 1703 | B) 2189 | C) 1217 | D) 2191 |
|---------|---------|---------|---------|

Puzzle 7. What comes next in the sequence?

14	42	31	93	82	246	235	705	?
----	----	----	----	----	-----	-----	-----	---

- | | | | |
|--------|--------|---------|---------|
| A) 694 | B) 705 | C) 2115 | D) 2116 |
|--------|--------|---------|---------|

Puzzle 8. What comes next in the sequence?

7	24	57	112	195	312	469	?
---	----	----	-----	-----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 678 | B) 672 | C) 666 | D) 626 |
|--------|--------|--------|--------|

Puzzle 9. What comes next in the sequence?

4	19	52	109	196	319	484	?
---	----	----	-----	-----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 697 | B) 691 | C) 703 | D) 649 |
|--------|--------|--------|--------|

Puzzle 10. What comes next in the sequence?

13	33	71	133	225	353	523	?
----	----	----	-----	-----	-----	-----	---

- | | | | |
|--------|--------|--------|--------|
| A) 741 | B) 735 | C) 693 | D) 747 |
|--------|--------|--------|--------|

Answer Key

1. **B) 125**

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

6. **B) 2189**

Differences form geometric sequence ($\times 3$): 2, 6, 18, 54, 162, 486, 1458.

2. **A) 576**

1st diffs: 9, 23, 43, 69, 101, 139.

7. **C) 2115**

Alternating: $\times 3$ (odd steps), -11 (even steps).

3. **C) 523**

Differences form geometric sequence ($\times 2$): 4, 8, 16, 32, 64, 128, 256.

8. **B) 672**

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

4. **B) 156**

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

9. **A) 697**

1st diffs: 15, 33, 57, 87, 123, 165.

5. **A) 2097**

Alternating: $\times 3$ (odd steps), -7 (even steps).

10. **A) 741**

1st diffs: 20, 38, 62, 92, 128, 170.