

Pattern Puzzles – Pack 22

Puzzle 1. What comes next in the sequence?

| | | | | | | | |
|----|----|----|-----|-----|------|------|---|
| -1 | 12 | 75 | 248 | 615 | 1284 | 2387 | ? |
|----|----|----|-----|-----|------|------|---|

- A) 4080
 B) 3490
 C) 4104
 D) 4056

Puzzle 2. What number replaces the question mark in the grid?

| | | |
|---|---|---|
| 2 | 4 | 6 |
| 7 | 7 | 3 |
| 3 | 2 | ? |

- A) 17
 B) 22
 C) 12
 D) 16

Puzzle 3. What comes next in the sequence?

| | | | | | | | |
|---|----|-----|-----|-----|------|------|---|
| 6 | 41 | 154 | 417 | 926 | 1801 | 3186 | ? |
|---|----|-----|-----|-----|------|------|---|

- A) 4571
 B) 5273
 C) 5225
 D) 5249

Puzzle 4. What comes next in the sequence?

| | | | | | | | |
|---|----|----|-----|-----|------|------|---|
| 6 | 23 | 92 | 273 | 650 | 1331 | 2448 | ? |
|---|----|----|-----|-----|------|------|---|

- A) 4157
 B) 4181
 C) 4133
 D) 3565

Puzzle 5. What number replaces the question mark in the grid?

| | | |
|---|---|----|
| 7 | 8 | 10 |
| 6 | 6 | 19 |
| 6 | 4 | ? |

- A) 33
 B) 21
 C) 26
 D) 27

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Puzzle 6. What number replaces the question mark in the grid?

| | | |
|---|---|----|
| 7 | 6 | 11 |
| 4 | 2 | 24 |
| 7 | 7 | ? |

- A) 16
 B) 21
 C) 22
 D) 28

Puzzle 7. What comes next in the sequence?

| | | | | | | | |
|---|----|----|-----|-----|------|------|---|
| 4 | 24 | 96 | 280 | 660 | 1344 | 2464 | ? |
|---|----|----|-----|-----|------|------|---|

- A) 3584
 B) 4152
 C) 4200
 D) 4176

Puzzle 8. What number replaces the question mark in the grid?

| | | |
|---|---|---|
| 7 | 3 | 3 |
| 5 | 3 | 9 |
| 2 | 3 | ? |

- A) 15
 B) 20
 C) 16
 D) 12

Puzzle 9. What comes next in the sequence?

| | | | | | | | |
|---|----|-----|-----|-----|------|------|---|
| 6 | 42 | 156 | 420 | 930 | 1806 | 3192 | ? |
|---|----|-----|-----|-----|------|------|---|

- A) 5256
 B) 5232
 C) 5280
 D) 4578

Puzzle 10. What comes next in the sequence?

| | | | | | | | |
|---|----|-----|-----|-----|------|------|---|
| 7 | 35 | 135 | 379 | 863 | 1707 | 3055 | ? |
|---|----|-----|-----|-----|------|------|---|

- A) 5051
 B) 5099
 C) 4403
 D) 5075

Answer Key

1. **A) 4080**

4th diffs: 24 (constant – quartic sequence).

6. **C) 22**

Row sums form arithmetic sequence: 24, 30, 36.

2. **A) 17**

Row sums form arithmetic sequence: 12, 17, 22.

7. **D) 4176**

4th diffs: 24 (constant – quartic sequence).

3. **D) 5249**

4th diffs: 24 (constant – quartic sequence).

8. **C) 16**

Row sums form arithmetic sequence: 13, 17, 21.

4. **A) 4157**

4th diffs: 24 (constant – quartic sequence).

9. **A) 5256**

4th diffs: 24 (constant – quartic sequence).

5. **D) 27**

Row sums form arithmetic sequence: 25, 31, 37.

10. **D) 5075**

4th diffs: 24 (constant – quartic sequence).