

Pattern Puzzles – Pack 17

Puzzle 1. What number replaces the question mark in the grid?

| | | |
|---|---|---|
| 6 | 3 | 5 |
| 4 | 6 | 8 |
| 8 | 6 | ? |

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

| | | |
|---|---|----|
| 5 | 5 | 5 |
| 3 | 6 | 11 |
| 6 | 8 | ? |

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Puzzle 3. What number replaces the question mark in the grid?

| | | |
|---|---|----|
| 5 | 7 | 7 |
| 3 | 6 | 14 |
| 2 | 8 | ? |

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Puzzle 4. What comes next in the sequence?

| | | | | | | | |
|---|----|-----|-----|-----|------|------|---|
| 1 | 28 | 129 | 376 | 865 | 1716 | 3073 | ? |
|---|----|-----|-----|-----|------|------|---|

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

| | | |
|---|---|----|
| 2 | 6 | 11 |
| 2 | 7 | 15 |
| 2 | 6 | ? |

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

| | | |
|---|---|----|
| 8 | 7 | 1 |
| 4 | 2 | 13 |
| 2 | 6 | ? |

- A) 14
 B) 13
 C) 17
 D) 11

Puzzle 7. What number replaces the question mark in the grid?

| | | |
|---|---|----|
| 2 | 7 | 16 |
| 7 | 8 | 16 |
| 7 | 5 | ? |

- A) 31
 B) 19
 C) 25
 D) 24

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

| | | |
|---|---|----|
| 7 | 6 | 1 |
| 7 | 3 | 10 |
| 6 | 4 | ? |

- A) 22
 B) 10
 C) 16
 D) 15

Puzzle 9. What comes next in the sequence?

| | | | | | | | |
|---|----|-----|-----|-----|------|------|---|
| 9 | 43 | 153 | 411 | 913 | 1779 | 3153 | ? |
|---|----|-----|-----|-----|------|------|---|

- A) 5179
 B) 4527
 C) 5203
 D) 5227

Puzzle 10. What comes next in the sequence?

| | | | | | | | |
|---|----|----|-----|-----|------|------|---|
| 1 | 16 | 81 | 256 | 625 | 1296 | 2401 | ? |
|---|----|----|-----|-----|------|------|---|

- A) 4096
 B) 4072
 C) 4120
 D) 3506

Answer Key

1. **C) 8**

Row sums form arithmetic sequence: 14, 18, 22.

6. **A) 14**

Row sums form arithmetic sequence: 16, 19, 22.

2. **D) 11**

Row sums form arithmetic sequence: 15, 20, 25.

7. **C) 25**

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

3. **D) 17**

Row sums form arithmetic sequence: 19, 23, 27.

8. **C) 16**

Row sums form arithmetic sequence: 14, 20, 26.

4. **C) 5104**

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

9. **C) 5203**

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

5. **A) 21**

Row sums form arithmetic sequence: 19, 24, 29.

10. **A) 4096**

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