

## Pattern Puzzles – Pack 16

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

4	5	15
4	6	16
3	4	?

- A) 20     
  B) 21     
  C) 23     
  D) 19

**Puzzle 2.** What comes next in the sequence?

7	33	123	343	783	1557	2803	?
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- A) 4659     
  B) 4707     
  C) 4683     
  D) 4049

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

7	8	7
4	8	16
2	2	?

- A) 24     
  B) 36     
  C) 29     
  D) 30

**Puzzle 4.** What comes next in the sequence?

9	45	159	423	933	1809	3195	?
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- A) 5283     
  B) 4581     
  C) 5235     
  D) 5259

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

8	7	7
6	7	13
8	7	?

- A) 14     
  B) 19     
  C) 15     
  D) 11

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

6	6	5
4	3	12
5	2	?

- A) 12     
  B) 14     
  C) 16     
  D) 13

**Puzzle 7.** What comes next in the sequence?

8	25	92	269	640	1313	2420	?
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- A) 4141     
  B) 3527     
  C) 4117     
  D) 4093

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

6	4	3
5	3	7
2	2	?

- A) 12     
  B) 13     
  C) 11     
  D) 15

**Puzzle 9.** What number replaces the question mark in the grid?

6	3	9
4	2	16
2	8	?

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

**Puzzle 10.** What comes next in the sequence?

8	31	108	299	688	1383	2516	?
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- A) 4243     
  B) 4267     
  C) 3649     
  D) 4219

## Answer Key

1. **B) 21**

Row sums form arithmetic sequence: 24, 26, 28.

6. **B) 14**

Row sums form arithmetic sequence: 17, 19, 21.

2. **C) 4683**

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

7. **C) 4117**

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

3. **D) 30**

Row sums form arithmetic sequence: 22, 28, 34.

8. **B) 13**

Row sums form arithmetic sequence: 13, 15, 17.

4. **D) 5259**

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

9. **A) 16**

Row sums form arithmetic sequence: 18, 22, 26.

5. **C) 15**

Row sums form arithmetic sequence: 22, 26, 30.

10. **A) 4243**

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