

### Pattern Puzzles – Pack 40

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

2	6	18
2	6	18
2	6	?

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

1	11	41	131	401	1211	?
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**Puzzle 3.** What number replaces the question mark in the grid?

4	8	16
3	9	27
1	3	?

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

11	18	29	44	63	86	?
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**Puzzle 5.** What comes next in the sequence?

1	6	21	66	201	606	?
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**Puzzle 6.** What comes next in the sequence?

1	6	16	36	76	156	?
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- A) 312      B) 160      C) 316      D) 317

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

1	3	9
4	8	16
3	6	?

- A) 11      B) 8      C) 18      D) 12

**Puzzle 8.** What comes next in the sequence?

8	4	12	14	16	24	?
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- A) 20      B) 26      C) 34      D) 21

**Puzzle 9.** What comes next in the sequence?

5	20	65	200	605	1820	?
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- A) 5466      B) 5465      C) 1825      D) 5460

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

9	13	20	24	31	35	42	?
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- A) 53      B) 49      C) 46      D) 45

## Answer Key

1. **C) 18**  
Each row is a geometric sequence. Row 3 ratio:  $\times 3$ .
2. **A) 3641**  
Sequence: 1, 11, 41, 131, 401, 1211, ...
3. **B) 9**  
Each row is a geometric sequence. Row 3 ratio:  $\times 3$ .
4. **C) 113**  
Sequence: 11, 18, 29, 44, 63, 86, ...
5. **B) 1821**  
Sequence: 1, 6, 21, 66, 201, 606, ...
6. **C) 316**  
Sequence: 1, 6, 16, 36, 76, 156, ...
7. **D) 12**  
Each row is a geometric sequence. Row 3 ratio:  $\times 2$ .
8. **A) 20**  
Two interleaved series – odd:  $+4$ , even:  $+10$ .
9. **B) 5465**  
Sequence: 5, 20, 65, 200, 605, 1820, ...
10. **C) 46**  
Sequence: 9, 13, 20, 24, 31, 35, 42, ...