

Patterns: Worksheet for Grade 4 : Difficulty Level : Advanced

Name: _____

Date: _____

Section A: Complex Number Patterns

1. Find the next two numbers in the sequence:

- a) 7, 14, 22, 31, 41, ____, ____
- b) 1, 3, 6, 10, 15, ____, ____
- c) 150, 140, 125, 105, 80, ____, ____
- d) 4, 12, 36, 108, ____, ____

2. Identify the rule and fill in the blanks:

- a) 10, 15, 23, 34, ____, ____
 - b) 100, 90, 81, 73, ____, ____
 - c) 3, 9, 27, 81, ____, ____
 - d) 50, 47, 41, 32, ____, ____
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Section B: Advanced Shape Patterns

3. Draw the next shapes in the sequence:

- a) , , , , , , ____, ____
- b) , , , , , , ____, ____

4. Identify and draw the missing shape:

- a) , , , , , , ____
 - b) , , , , , , ____
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Section C: Word and Letter Patterns

5. Complete the word sequence:

- a) TAP, TEP, TIP, TOP, ____, ____
- b) CAT, CUT, COT, ____, ____

6. **Continue the letter pattern:**

- a) X1, Y2, Z3, X4, Y5, ____, ____
b) M, P, O, R, Q, ____, ____
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Section D: Challenge Section

7. **Mixed pattern problem:**

- a) 2B, 4D, 8F, 16H, ____, ____
b) A5, C10, E15, G20, ____, ____

8. **Create your own number or shape pattern and explain the logic:**

Pattern: _____

Explanation: _____

Answer Key (for teachers):

- **Section A:** 1) a) 52, 64 b) 21, 28 c) 50, 20 d) 324, 972
- **Section B:** 3) a) ●, ● b) ■, ■
- **Section C:** 5) a) TUP, TEP b) CAT, COT
- **Section D:** Answers for created patterns will vary.

— BE CHAMPION —