

Patterns: Worksheet for Grade 4 : Difficulty Level : Advanced

Name: _____

Date: _____

Section A: Advanced Number Sequences

1. Complete the sequence by finding the next two numbers:

- a) 4, 9, 16, 25, 36, ____, ____,
- b) 1000, 950, 900, 850, 800, ____, ____,
- c) 2, 5, 10, 17, 26, ____, ____,
- d) 1, 3, 6, 10, 15, ____, ____,

2. Identify the pattern rule and fill in the blanks:

- a) 2, 8, 24, 64, ____, ____,
 - b) 10, 20, 40, 80, ____, ____,
 - c) 3, 9, 18, 30, ____, ____,
 - d) 1, 4, 16, 64, ____, ____,
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Section B: Shape and Visual Patterns

3. Draw the next two shapes in the pattern:

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

4. Identify the missing shape in the following sequence:

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

5. Complete the following word patterns:

- a) MAT, BAT, CAT, FAT, ____, ____,
- b) HOPE, HOP, HONE, HOME, ____, ____,

6. Continue the sequence based on the rule:

- a) B1, C3, D6, E10, ____, ____
b) P5, Q10, R15, S20, ____, ____
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Section D: Mixed Patterns

7. Fill in the blanks for the following mixed patterns:

- a) 2A, 4B, 8C, 16D, ____, ____
b) 5, 10, 20, 40, ____, ____

8. Solve the following:

- a) 2, 4, 8, 16, 32, ____, ____
b) 100, 80, 60, 40, 20, ____, ____
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Section E: Challenge Problem

9. Create your own pattern (number, shape, or word) and explain how it works.

Pattern: _____

Explanation: _____

Answer Key (for teachers):

- Section A: 1) a) 49, 64 b) 750, 700 c) 37, 50 d) 21, 28
- Section B: 3) a) ,  b) , 
- Section C: 5) a) SAT, MAT b) HONE, HOME
- Section D: 7) a) 32E, 64F b) 80, 160
- Section E: Answers will vary for created patterns.

— BE CHAMPION —