

## Patterns: Worksheet for Grade 4 : Difficulty Level : Advanced

Name: \_\_\_\_\_

Date: \_\_\_\_\_

---

### Section A: Advanced Number Patterns

1. Find the next two numbers in the sequence:

- a) 2, 6, 12, 20, 30, \_\_\_\_, \_\_\_\_
- b) 5, 11, 18, 26, 35, \_\_\_\_, \_\_\_\_
- c) 300, 275, 250, 225, 200, \_\_\_\_, \_\_\_\_
- d) 2, 5, 10, 17, 26, \_\_\_\_, \_\_\_\_

2. Fill in the blanks in the following sequences:











- a) 9, 17, 26, 36, \_\_\_\_, \_\_\_\_
  - b) 1000, 950, 900, 850, \_\_\_\_, \_\_\_\_
  - c) 3, 8, 15, 24, \_\_\_\_, \_\_\_\_
  - d) 5, 25, 125, 625, \_\_\_\_, \_\_\_\_
- 

### Section B: Shape Patterns with Complex Rules

3. Draw the next two shapes in the pattern:

- a) , , , , \_\_\_\_, \_\_\_\_
- b) , , , , \_\_\_\_, \_\_\_\_

4. Identify and complete the missing shapes:

- a) , , , , , \_\_\_\_
  - b) , , , , , \_\_\_\_
- 

### Section C: Word and Letter Patterns

5. Complete the word sequence:

- a) DOG, DOGS, DOGED, DOGING, \_\_\_\_, \_\_\_\_
- b) CLAP, CLIP, CLAP, CLIP, \_\_\_\_, \_\_\_\_

6. Identify the rule and continue the letter pattern:

- a) A1, B3, C6, D10, \_\_\_\_, \_\_\_\_
- b) Z5, Y10, X15, W20, \_\_\_\_, \_\_\_\_

**Section D: Multi-Step Challenge Problems**

7. Solve the following complex patterns:

a) 3, 6, 11, 18, 27, \_\_\_\_, \_\_\_\_

b) 7, 12, 17, 22, 27, \_\_\_\_, \_\_\_\_





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

Pattern: \_\_\_\_\_

Explanation: \_\_\_\_\_

---

**Answer Key (for teachers):**

- **Section A:** 1) a) 42, 56 b) 43, 52 c) 175, 150 d) 37, 50
- **Section B:** 3) a) ,  b) , 
- **Section C:** 5) a) DOGGED, DOGGING b) CLAP, CLIP
- **Section D:** Answers for created patterns will vary.

**— BE CHAMPION—**