

Grade 4 · Number and Shape Patterns · Quiz

Common Core 4.OA.C.5 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

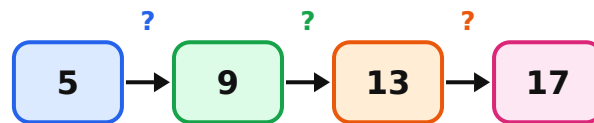
This 10-question quiz checks number and shape patterns from standard 4.OA.C.5. Choose the one best answer for each question, then read the explanation to learn from any mistake.

Grade 4 Common Core: 4.OA.C.5

Questions

Question 1

What is the rule for this pattern?



A number pattern.

- A. Add 4
- B. Add 5
- C. Add 3
- D. Multiply by 4

Question 2

What are the first four terms of the rule "start at 7, add 6"?

- A. 7,14,21,28
- B. 7,13,19,25
- C. 13,19,25,31
- D. 6,13,20,27

Question 3

What is the next term: 2,4,8,16, ...?

- A. 24
- B. 20
- C. 30

D. 32

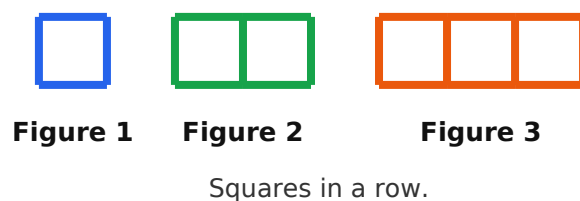
Question 4

The rule is "start at 40, subtract 3." What is the 5th term?

- A. 31
- B. 28
- C. 25
- D. 37

Question 5

How many toothpicks are in Figure 5 of this pattern?



- A. 15
- B. 13
- C. 16
- D. 19

Question 6

Which statement is true about the terms of "start at 1, add 4"?

- A. Every term is odd
- B. Every term is even
- C. The terms alternate odd and even
- D. Every term is a multiple of 4

Question 7

The table shows a pattern. What is the 8th term?

Term number	1	2	3	4
Term	3	6	9	12

A pattern table.

- A. 21
- B. 27

- C. 11
- D. 24

Question 8

Which pattern follows the rule "start at 10, add 15"?

- A. 10,25,40,55
- B. 10,20,30,40
- C. 10,25,50,75
- D. 15,30,45,60

Question 9

The pattern starts at 5 and adds 5. Which number is in the pattern?

- A. 83
- B. 92
- C. 85
- D. 78

Question 10

Mei has and saves each week. Which amount could she have exactly after some week?

Answer key

1. **A** - Each term is 4 more than the one before: $9 - 5 = 4$, $13 - 9 = 4$, $17 - 13 = 4$.
Multiplying 5 by 4 would give 20.
2. **B** - Start with 7, then $7 + 6 = 13$, $13 + 6 = 19$, $19 + 6 = 25$. The choice 7, 14, 21, 28 adds 7 and the choice that starts with 13 skips the first term.
3. **D** - Each term is double the one before, so $16 \times 2 = 32$. Adding 8 (the last jump) would give 24, which is a common mistake.
4. **B** - The terms are 40, 37, 34, 31, 28. The number 31 is the 4th term and 25 is the 6th term.
5. **C** - The counts are 4, 7, 10, 13, 16, adding 3 each time. The number 13 is Figure 4 and 19 is Figure 7.
6. **A** - The terms 1, 5, 9, 13 are all odd, because odd + 4 stays odd. The terms are not multiples of 4.
7. **D** - The rule is add 3 starting at 3, so the terms are multiples of 3: $3 \times 8 = 24$. The choice 21 is the 7th term.
8. **A** - $10 + 15 = 25$, $25 + 15 = 40$, $40 + 15 = 55$. The others use a different start or a different step.
9. **C** - Every term is a multiple of 5, so it ends in 0 or 5. Only 85 ends in 5.
10. **B** - The amounts are 9, 13, 17, 21, ... and all are odd. Only fits: $9 + 4 \times 8 = 41$.

Remember:

- A pattern rule names a starting number and a repeated operation, such as add 3 or multiply by 2.
- Each number in a pattern is called a term; apply the rule to one term to get the next.
- Shape patterns can be turned into number patterns by counting parts in each figure.
- Features such as odd or even terms, multiples, and repeating digits can be found by studying the terms.
- Check a pattern by repeating the operation between neighbors.