

Grade 5 - Patterns and Ordered Pairs - Quiz

Common Core 5.OA.B.3 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

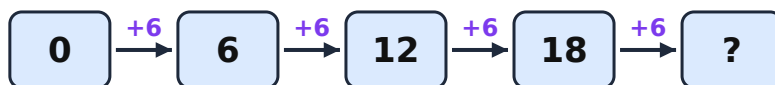
Answer these 10 multiple-choice questions on number patterns, corresponding terms and ordered pairs. Pick the one best answer. Some questions show a graph or a table. Read the explanation after each question to learn from any mistake.

Grade 5 · Common Core State Standards: **5.OA.B.3**

Questions

Question 1

Start at 0 and add 6. What number comes next? 0,6,12,18,?



Add 6 each time.

- A. 20
- B. 30
- C. 36
- D. 24

Question 2

Pattern A starts at 0 and adds 3. Pattern B starts at 0 and adds 6. What is the ordered pair when A is 9?

- A. (9,18)
- B. (9,12)
- C. (9,9)
- D. (18,9)

Question 3

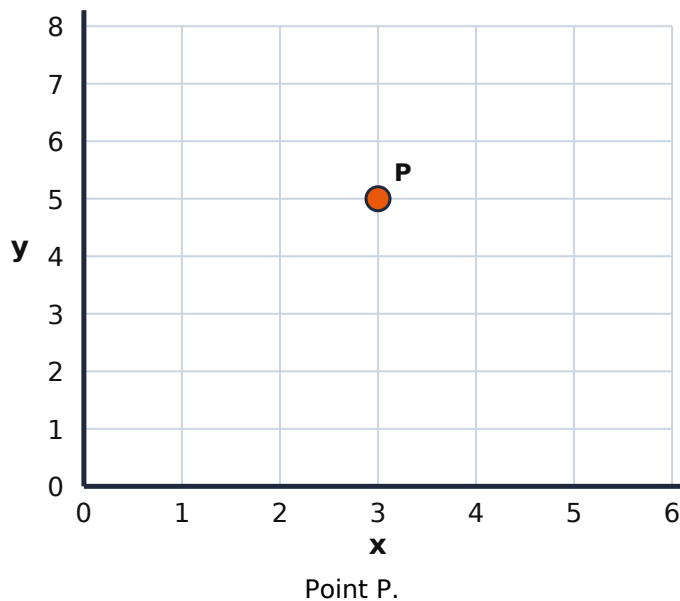
Pattern A adds 4 and pattern B adds 12, both starting at 0. How do the B terms compare with the A terms?

- A. B is 3 times A

- B. B is 8 more than A
- C. B is 4 times A
- D. B is one third of A

Question 4

Which ordered pair does point P show?



- A. (5, 3)
- B. (3, 5)
- C. (3, 3)
- D. (5, 5)

Question 5

Pattern A starts at 0 and adds 5. Pattern B starts at 0 and adds 10. Which ordered pair comes from the patterns?

- A. (15, 20)
- B. (15, 30)
- C. (10, 15)
- D. (20, 30)

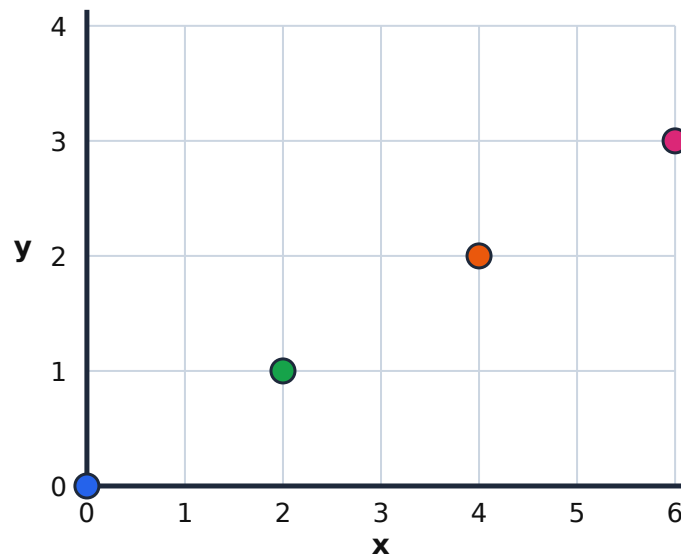
Question 6

These pairs come from two patterns: $(0,0)$, $(2,8)$, $(4,16)$, $(6,?)$. Find the missing number.

- A. 20
- B. 22
- C. 24
- D. 32

Question 7

Which rules match the graph?



Four points.

- A. x: add 1; y: add 2
- B. x: add 2; y: add 2
- C. x: add 2; y: add 1
- D. x: add 1; y: add 1

Question 8

Maya rides 5 miles each hour. Hours: 0, 1, 2, 3, ... Miles: 0, 5, 10, 15, ... How many miles does she ride in 6 hours?

- A. 11 miles
- B. 35 miles
- C. 25 miles
- D. 30 miles

Question 9

Look at the table. Which statement is true?

Priya	0	5	10	15
Diego	0	10	20	30

Savings.

- A. Diego's amount is always 5 more than Priya's
- B. Diego's amount is always 2 times Priya's amount
- C. Priya's amount is always 2 times Diego's

D. Diego's and Priya's amounts are always equal

Question 10

Pattern A starts at 0 and adds 2. Pattern B starts at 0 and adds 6. Which ordered pair is NOT from the patterns?

- A. (6, 12)
- B. (4, 12)
- C. (2, 6)
- D. (8, 24)

Answers

1. **D** – Add 6 to the last term: $18 + 6 = 24$. Adding 2 or 12 does not follow the rule.
2. **A** – A: 0, 3, 6, 9 so 9 is the fourth term. B: 0, 6, 12, 18, so the fourth term is 18. The pair is (9, 18) with A first.
3. **A** – 12 is 3 times 4, 24 is 3 times 8. Each B term is 3 times its partner.
4. **B** – P is 3 units right and 5 units up, so the pair is (3, 5). Switching the numbers gives (5, 3).
5. **B** – A: 0, 5, 10, 15 and B: 0, 10, 20, 30. The fourth terms are 15 and 30.
6. **C** – The second numbers go up by 8: 0, 8, 16, 24.
7. **C** – The points go 2 right and 1 up each time, so x adds 2 and y adds 1.
8. **D** – Each hour adds 5 miles, so 6 hours gives $6 \times 5 = 30$ miles.
9. **B** – $10 = 2 \times 5$, $20 = 2 \times 10$, $30 = 2 \times 15$. Diego's amount is 2 times Priya's.
10. **A** – A: 0, 2, 4, 6 and B: 0, 6, 12, 18. When A is 6, B is 18, so (6, 12) is not a pair.

Remember

- Each number in a pattern is called a term.
- Corresponding terms are the terms in the same position in two patterns.
- In an ordered pair (x, y), x tells how far right and y tells how far up.
- If one pattern adds twice as much as the other, its terms are twice as large.
- Points from patterns that add the same amount each time lie on a straight line.