

Grade 5 - Patterns and Ordered Pairs - Worksheet

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

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

These 20 problems practice numerical patterns and ordered pairs (Common Core 5.OA.B.3). You will extend patterns made by two rules, write corresponding terms as ordered pairs, find how the terms are related, and plot points on a coordinate plane.

The first problems are short pattern checks. The last six are word problems about money, miles and games. Write every term you find before you answer.

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

Exercise 1 - Add 5 pattern

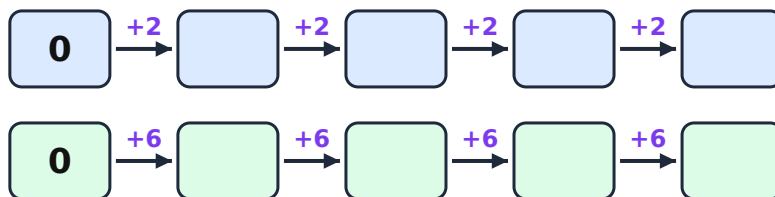
Write the first six terms of this pattern. Start at 0 and add 5.

Exercise 2 - Add 4 pattern

Write the first six terms of this pattern. Start at 0 and add 4.

Exercise 3 - Two rules

Pattern A: start at 0 and add 2. Pattern B: start at 0 and add 6. Write the first five terms of each pattern.



Fill in the boxes.

Exercise 4 - Write ordered pairs

Pattern A: 0, 3, 6, 9. Pattern B: 0, 9, 18, 27. Write the four ordered pairs of corresponding terms.

Exercise 5 - Fill in the table

Pattern A starts at 0 and adds 5. Pattern B starts at 0 and adds 10. Copy and complete the table.

A	0	5	?	15	20
B	0	10	20	?	40

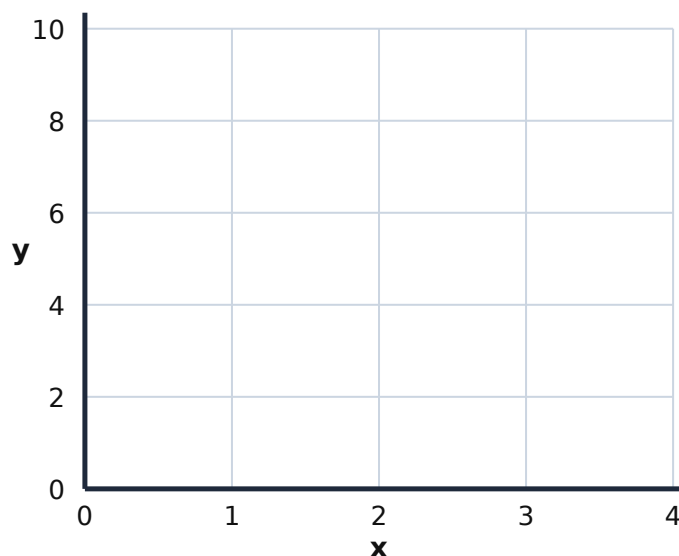
Find the two missing numbers.

Exercise 6 - Compare terms

Pattern A: 0, 3, 6, 9. Pattern B: 0, 12, 24, 36. How do the terms in B compare with the corresponding terms in A?

Exercise 7 - Plot four points

Plot the ordered pairs $(0,0)$, $(1,3)$, $(2,6)$, $(3,9)$ on a coordinate plane like the one shown.



Plot the points.

Exercise 8 - Write five pairs

Pattern A starts at 0 and adds 4. Pattern B starts at 0 and adds 8. Write the first five ordered pairs.

Exercise 9 - Find the missing pair

These ordered pairs come from two patterns: $(0,0)$, $(2,6)$, $(4,12)$, $(6,?)$, $(8,24)$. Find the missing number.

Exercise 10 - Find the rules

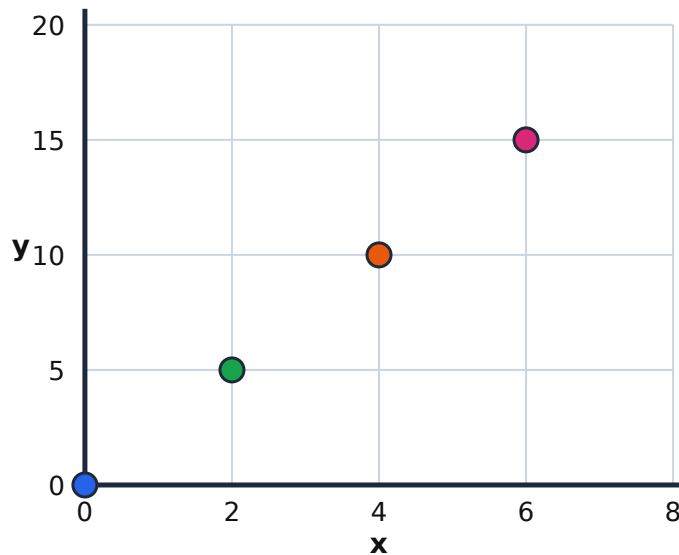
The ordered pairs $(0,0)$, $(5,10)$, $(10,20)$, $(15,30)$ come from two patterns. Write the rule for each pattern and tell how the terms are related.

Exercise 11 - Smaller second pattern

Pattern A: start at 0, add 6. Pattern B: start at 0, add 3. Write the first four ordered pairs and describe how the terms are related.

Exercise 12 - Read the graph

The graph shows ordered pairs from two patterns that start at 0. Write the ordered pairs, write the rule for each pattern, and tell the second number when the first number is 8.



Four points on a graph.

Exercise 13 - Which pairs belong?

Pattern A starts at 0 and adds 3. Pattern B starts at 0 and adds 6. Which of these ordered pairs come from the patterns? $(6,12), (9,15), (12,24)$

Exercise 14 - Liam's pair

Pattern A starts at 0 and adds 4. Pattern B starts at 0 and adds 8. Liam says that $(4,12)$ is a pair of corresponding terms. Explain his mistake and give the correct pair.

Exercise 15 - Farmers market apples

At the farmers market, Maya buys bags of apples. Each bag costs \$3. Number of bags: start at 0, add 1. Total cost: start at 0, add 3. Write the ordered pairs for 0 to 4 bags and tell the cost of 4 bags.



Each bag costs \$3.

Exercise 16 - Road trip

Jamal's family drives 50 miles each hour. Hours: start at 0, add 1. Miles: start at 0, add 50. Write the ordered pairs for 0 to 4 hours. How many miles do they drive in 6 hours?

Exercise 17 - Water bottles

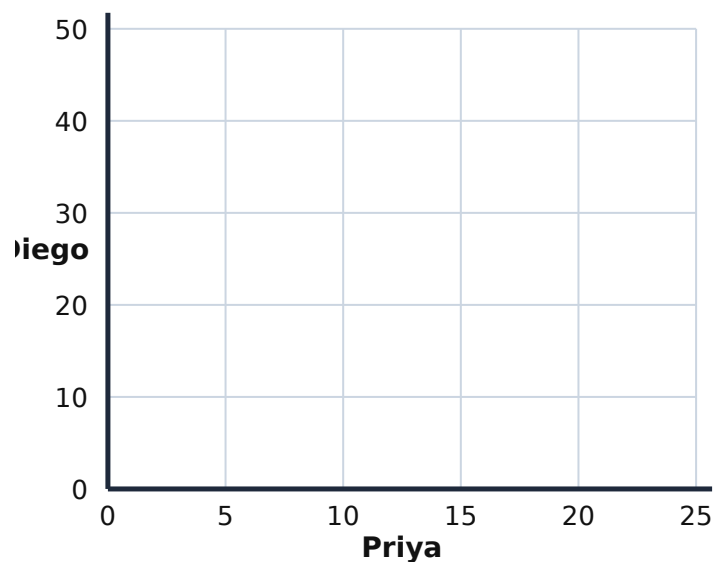
A Little League team plays games. Games: start at 0, add 2. Water bottles used: start at 0, add 10. How many water bottles are used in 10 games?

Exercise 18 - Cookie boxes

Sofia packs cookies at a bake sale. Cookies: start at 0, add 6. Dollars earned: start at 0, add 4. Write the first four ordered pairs. How many dollars does she earn for 18 cookies?

Exercise 19 - Saving money

Priya saves \$5 each week. Diego saves \$10 each week. Both start with \$0. Write ordered pairs (Priya's total, Diego's total) for weeks 0 to 5. How does Diego's total compare with Priya's?



Plot the pairs here if you like.

Exercise 20 - Bike ride

Mei rides her bike 3 miles every 15 minutes. Minutes: start at 0, add 15. Miles: start at 0, add 3. (a) Write the ordered pairs for 0 to 60 minutes. (b) How many miles does she ride in 90 minutes? (c) How many minutes does it take to ride 21 miles?