LESSON MAKER PRO

Pattern Partners

Find how two number patterns fit together.

GRADE 5 · 5.AT.B.3

5.AT.B.3 "Generate and analyze number patterns. Generate a number pattern that follows a given rule and identify relationships between the numbers within the pattern..."

NAME _____ DATE _____

COMPARE MATCHING TERMS

Repeat each rule to find the next term. Compare numbers in the same row to see how the patterns are related.

WORKED EXAMPLE

Fill the last row. How does B compare with A?

TWO PATTERNS

Term	A	B
First	14	28
Second	20	40
Third	___	___

1. A adds 6, so 20 + 6 = 26.
2. B adds 12, so 40 + 12 = 52.
3. In each row, B is twice A.

Answer: A: 26; B: 52. B is twice A.

PRACTICE 4 problems

1 Start at 41 and add 2 each time. What is the fifth term?

ANSWER _____

2 A starts at 33 and adds 7. B starts at 36 and adds 7. How much larger is B's fourth term?

ANSWER _____

3 A starts at 7 and adds 7. B starts at 35 and adds 35. Find both third terms. How is B related to A?

ANSWER _____

4 A starts at 30 and subtracts 4. B starts at 25 and subtracts 4. Write the fourth terms as (A, B).

ANSWER _____

APPLY IT Show your work

1 Ari and Bea earn points at each game level. Use the table to find their level 4 points. How do their points compare at every level?

GAME POINTS

Level	Ari	Bea
1	1	4
2	8	11
3	15	18

ANSWER _____

2 At a school fair, two teams earn tickets each round. Use the table to find their round 4 totals. How are the totals related?

FAIR TICKETS

Round	Team A	Team B
1	3	9
2	9	27
3	15	45

ANSWER _____

CHALLENGE One step up

Two patterns start at 19. A adds 5 each time, and B adds 2. At which term is A 12 greater than B? Give that term as (A, B).

WORK SPACE AND ANSWER

ANSWER KEY

Pattern Partners

GRADE 5 · 5.AT.B.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Start at 41 and add 2 each time. What is the fifth term?	**49**
2	A starts at 33 and adds 7. B starts at 36 and adds 7. How much larger is B's fourth term?	**3**
3	A starts at 7 and adds 7. B starts at 35 and adds 35. Find both third terms. How is B related to A?	**A: 21; B: 105. B is 5 times A.**
4	A starts at 30 and subtracts 4. B starts at 25 and subtracts 4. Write the fourth terms as (A, B).	**(18, 13)**

PART 2 · APPLY IT

1. **Level 4: Ari 22 points, Bea 25 points. Bea always has 3 more points.** Both scores rise by 7 each level. Add 7 to the level 3 scores.
2. **Round 4: Team A 21 tickets, Team B 63 tickets. Team B has 3 times Team A's total.** Team A adds 6 tickets per round, and Team B adds 18. Add those amounts to the round 3 totals.

CHALLENGE

Fifth term; (39, 27).

For relationship questions, accept equivalent wording such as 'B is 3 times A.' Count the starting number as the first term.