LESSON MAKER PRO

Find the Pattern

Match inputs to outputs.

GRADE 5 · 5.OA.B.2.a

5.OA.B.2.a "Use data from an input/output table to identify apparent relationships between corresponding terms."

NAME _____ DATE _____

THE BIG IDEA

Match each input with its output. Test a rule on every pair before you use it to find a missing number.

WORKED EXAMPLE

What rule connects the inputs and outputs?

Input	Output
16	96
18	108
20	120

1. 96 / 16 = 6.
2. 108 / 18 = 6.
3. 20 x 6 = 120.

Answer: Multiply the input by 6.

PRACTICE 4 problems

1 Pairs: (1, 5), (2, 10), (3, 15). What is the input-to-output rule?

ANSWER _____

2 Pairs: (2, 9), (4, 11), (8, 15). What output goes with input 12?

ANSWER _____

3 Pairs: (3, 14), (5, 22), (7, 30). What output goes with input 9?

ANSWER _____

4 Pairs: (1, 27), (3, 21), (5, 15). Give the rule and the output for input 7.

ANSWER _____

APPLY IT Show your work

1 A game awards coins for completed rounds. How many coins does the table predict after 8 rounds?

GAME COINS

Rounds	Coins
1	5
2	9
3	13

ANSWER _____

2 A sticker shop adds the same number of free stickers to every order. How many stickers come with 5 packs?

STICKER ORDERS

Packs	Stickers
1	7
2	12
3	17

ANSWER _____

CHALLENGE One step up

Find the missing input. Explain how your rule fits every row.

MISSING INPUT

Input	Output
1	8
2	13
3	18
___	38

WORK SPACE AND ANSWER

ANSWER KEY

Find the Pattern

GRADE 5 · 5.OA.B.2.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Pairs: (1, 5), (2, 10), (3, 15). What is the input-to-output rule?	**Multiply the input by 5.**
2	Pairs: (2, 9), (4, 11), (8, 15). What output goes with input 12?	**19**
3	Pairs: (3, 14), (5, 22), (7, 30). What output goes with input 9?	**38**
4	Pairs: (1, 27), (3, 21), (5, 15). Give the rule and the output for input 7.	**Subtract 3 times the input from 30; 9.**

PART 2 · APPLY IT

1. **33 coins** The number of coins is 4 times the rounds plus 1. For 8 rounds, 4 x 8 + 1 = 33.
2. **27 stickers** Each pack has 5 stickers, and the shop adds 2 free stickers. For 5 packs, 5 x 5 + 2 = 27.

CHALLENGE

7. Each output is 5 times the input plus 3. This gives 8, 13, and 18 for the first three rows, and 5 x 7 + 3 = 38.

Accept equivalent wording for each rule. In the challenge, the explanation must show that the rule fits all four rows.