

Lesson 1-5

Reinforce Understanding

Math is Finding Patterns

I can find patterns and pattern rules, use them to make generalizations, and check my solutions with a table of values.

Worked model

A change jar is full of pennies, nickels, dimes, and quarters worth \$53.50 in total. How many of each coin could there be?

1. Each penny has a value of \$0.01, so 100 pennies have a value of \$1.00.
2. Each nickel has a value of \$0.05, so 100 nickels have a value of \$5.00. Each dime has a value of \$0.10, so 100 dimes have a value of \$10. Each quarter has a value of \$0.25, so 100 quarters have a value of \$25.
3. I multiply the number of each coin by its value. And I notice a generalization: because the jar's total, \$53.50, ends in 0, the number of pennies can only be a multiple of 5.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Each penny has a value of \$0.01. What is the value of 100 pennies?

Circle the letter of the best answer. Show how you know.

- A. \$0.10
- B. \$1.00
- C. \$10.00
- D. \$100.00

Show your work

2. Each quarter has a value of \$0.25. Following the pattern, what is the value of 100 quarters?

Circle the letter of the best answer. Show how you know.

- A. \$2.50
- B. \$25.00
- C. \$100.25
- D. \$250.00

Show your work

3. Player A scores a two-pointer on every shot. What is Player A's pattern rule?

Circle the letter of the best answer. Show how you know.

- A. Add 2
- B. Multiply by 2
- C. Add 3
- D. Add 18

Show your work
