

Lesson 1-5 • Group 1

Reinforce Understanding

1.5 Small Group • Group 1

With my small group, I can find patterns and pattern rules, use them to make generalizations, and check my solutions with a table of values — one step at a time, with support.

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. Sort each pattern: add the same amount, or multiply by the same amount?

Write the name of the correct group on each line.

Groups: Add the same amount each time Multiply by the same amount each time

- _____ 4, 6, 8, 10, ...
- _____ 18, 20, 22, 24, ...
- _____ 4.5, 7.0, 9.5, 12.0, ...
- _____ 2, 4, 8, 16, ...
- _____ 1, 3, 9, 27, ...
- _____ 5, 50, 500, 5000, ...

2. Player A starts with 18 points and makes two-pointers. Complete the table.

Complete the table. Show how you found each value.

Two-pointers made	Rule: $18 + 2 \times \text{shots}$	Total points
1		
5		
10		

Show your work
