

Factor Game Rules

- 1. Player A chooses a number on the game board and circles it.
- **2.** Using a different color, Player B circles all the proper factors of Player A's number. The **proper factors** of a number are all the factors of that number, except the number itself. For example, the proper factors of 12 are 1, 2, 3, 4, and 6. Although 12 is a factor of itself, it is not a proper factor.
- **3.** Player B circles a new number, and Player A circles all the factors of the number that are not already circled.
- **4.** The players take turns choosing numbers and circling factors.
- **5.** If a player circles a number that has no factors left that have not been circled, that player loses a turn and does not get the points for the number circled.
- **6.** The game ends when there are no numbers remaining with uncircled factors.
- **7.** Each player adds the numbers that are circled with his or her color. The player with the greater total is the winner.

A sample game is shown on the following pages.

Investigation 1: The Factor Game