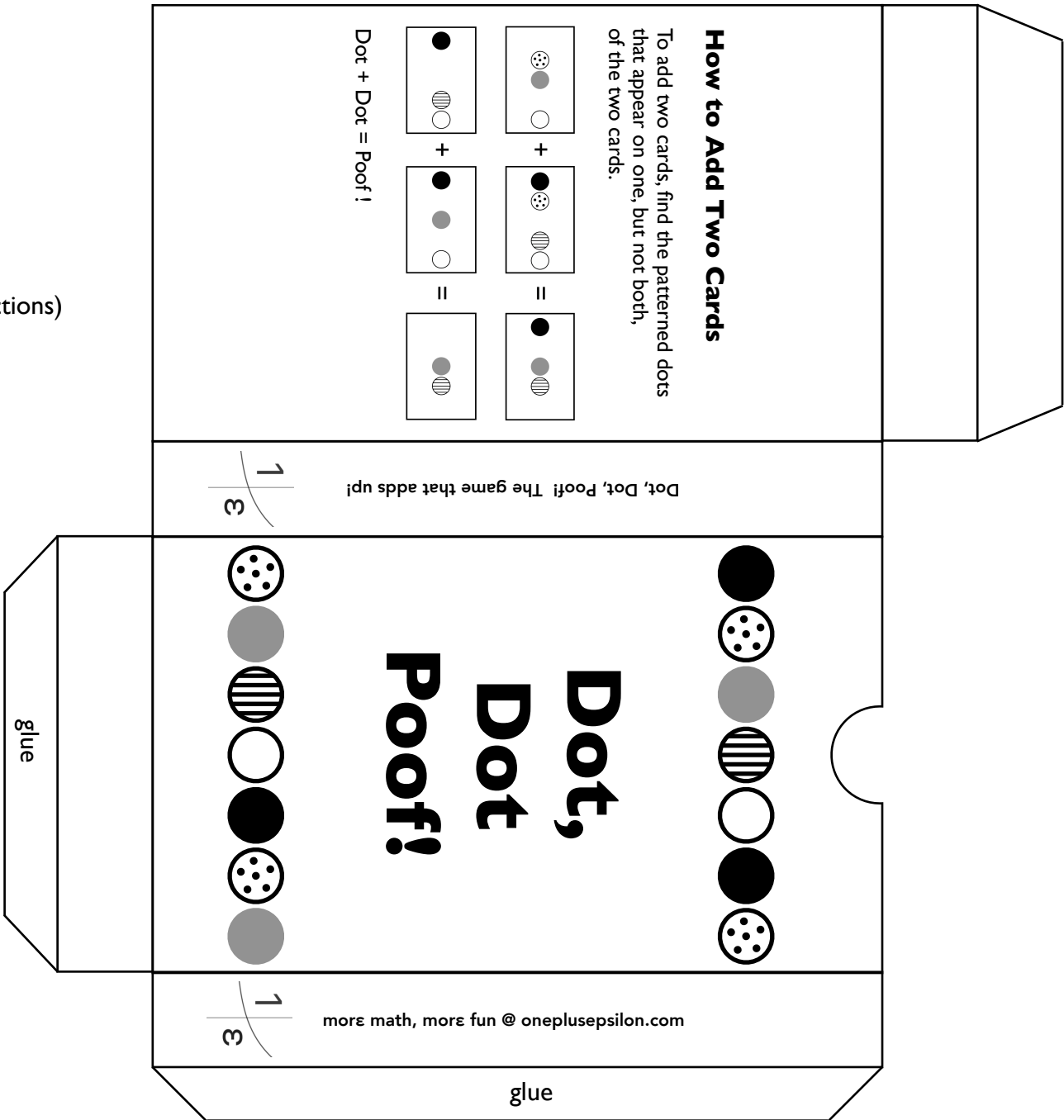


Dot, Dot, Poof!

Players: 1 – 4
 Ages: 6 – adult

Print this file on card stock
 Cut out the cards (31 game cards + instructions)
 For storage, cut out and assemble the box



RULES: Triad!

Shuffle the cards. Lay 12 cards in a 3 x 4 grid with the small gray arrow at the top right of each card.

Players race to find triads of cards where one card is the sum of the other two. The player who spots such a triplet calls "Triad!" and picks up the three cards. The other players check that the triad is valid.

Lay out three more cards to replace each triad taken. If at any point the players agree there are no triads among the cards laid out, lay out three more cards.

The game continues until there are no valid triads remaining. The player with the most triads is the winner.

RULES: Combo! Part I

Shuffle the cards. Lay 12 cards in a 3 x 4 grid with the small gray arrow at the top right of each card.

Players race to find one card that is the sum of other cards displayed. Any number of cards may be used. When a player spots such a card, they call "Combo!" and pick up that one card. They point out the other cards for the other players to check, but leave them on the table.

Lay out one new card to replace the card taken. If at any point the players agree that no card is the sum of any other cards, lay out three more cards.

Continue until there are no more cards to take. (Tip: There should be five cards remaining.) The winner is the one who took the most cards.

RULES: Combo! Part 2

Leave the five cards from Part I on the table. Each player keeps their pile of cards face down in front of them.

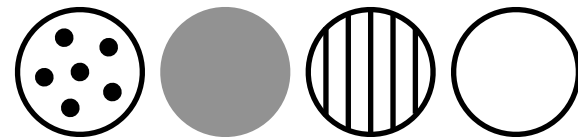
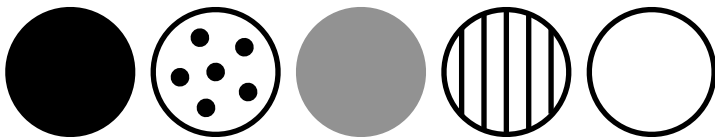
Players take turns flipping over a card from their pile. Players race to find which cards among the five cards add up to the flipped target card. Any number of the five cards may be used.

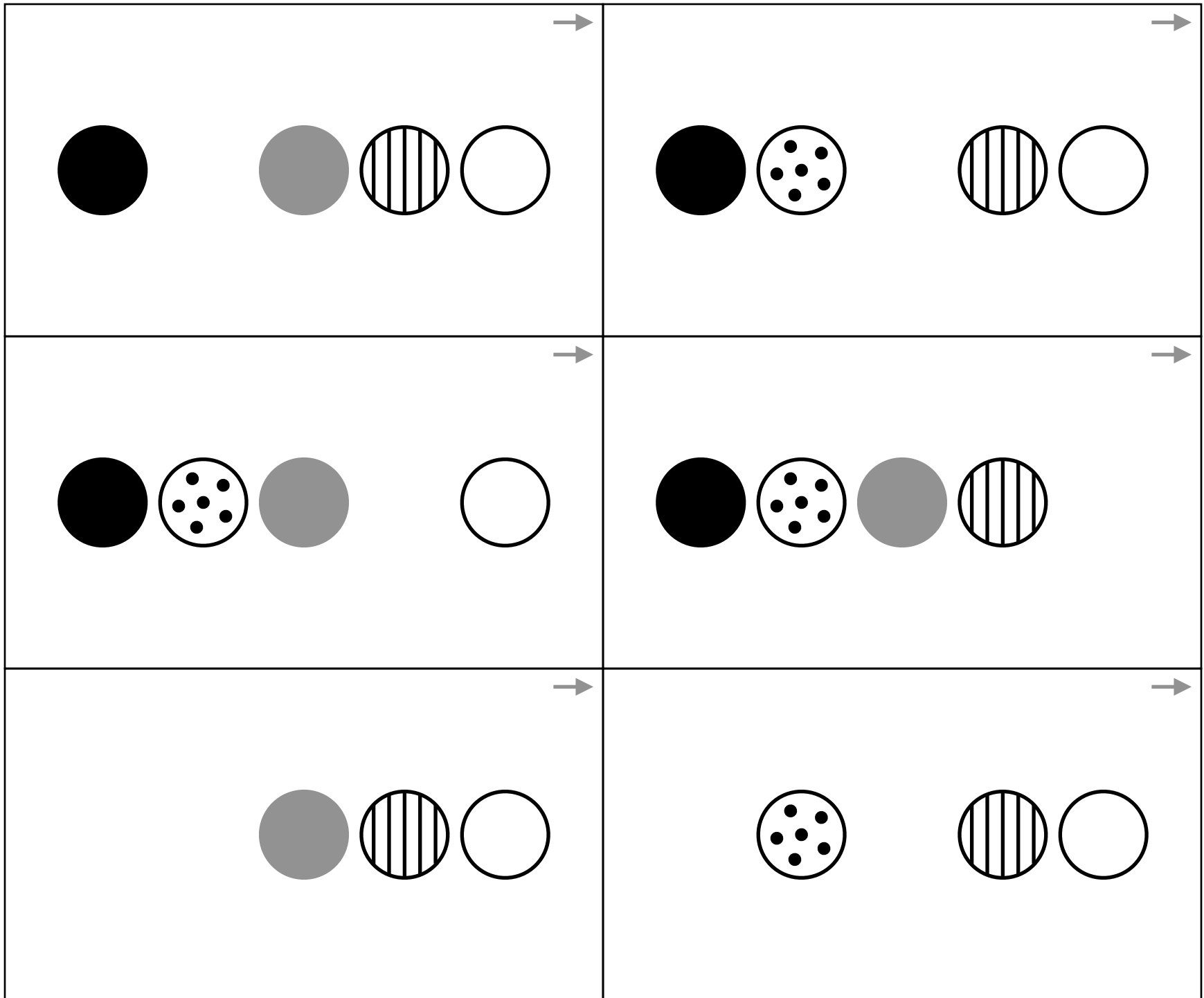
The player who finds such a combination calls "Combo!" They point to their proposed combination for the other players to check. If they are right, they take the one target card, leaving the five cards on the table.

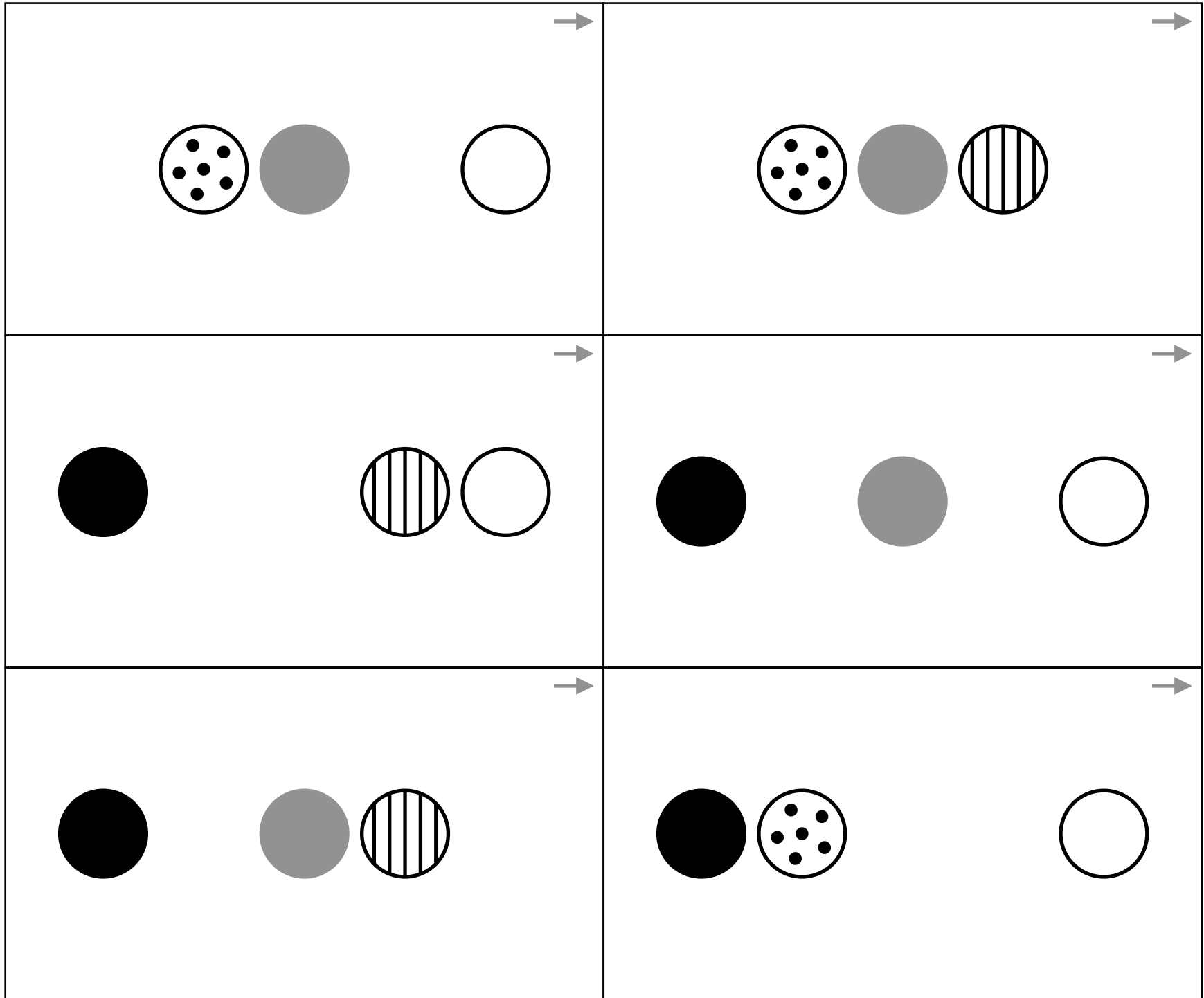
Play until all the draw piles are empty. The winner is the one who has the most cards at the end.

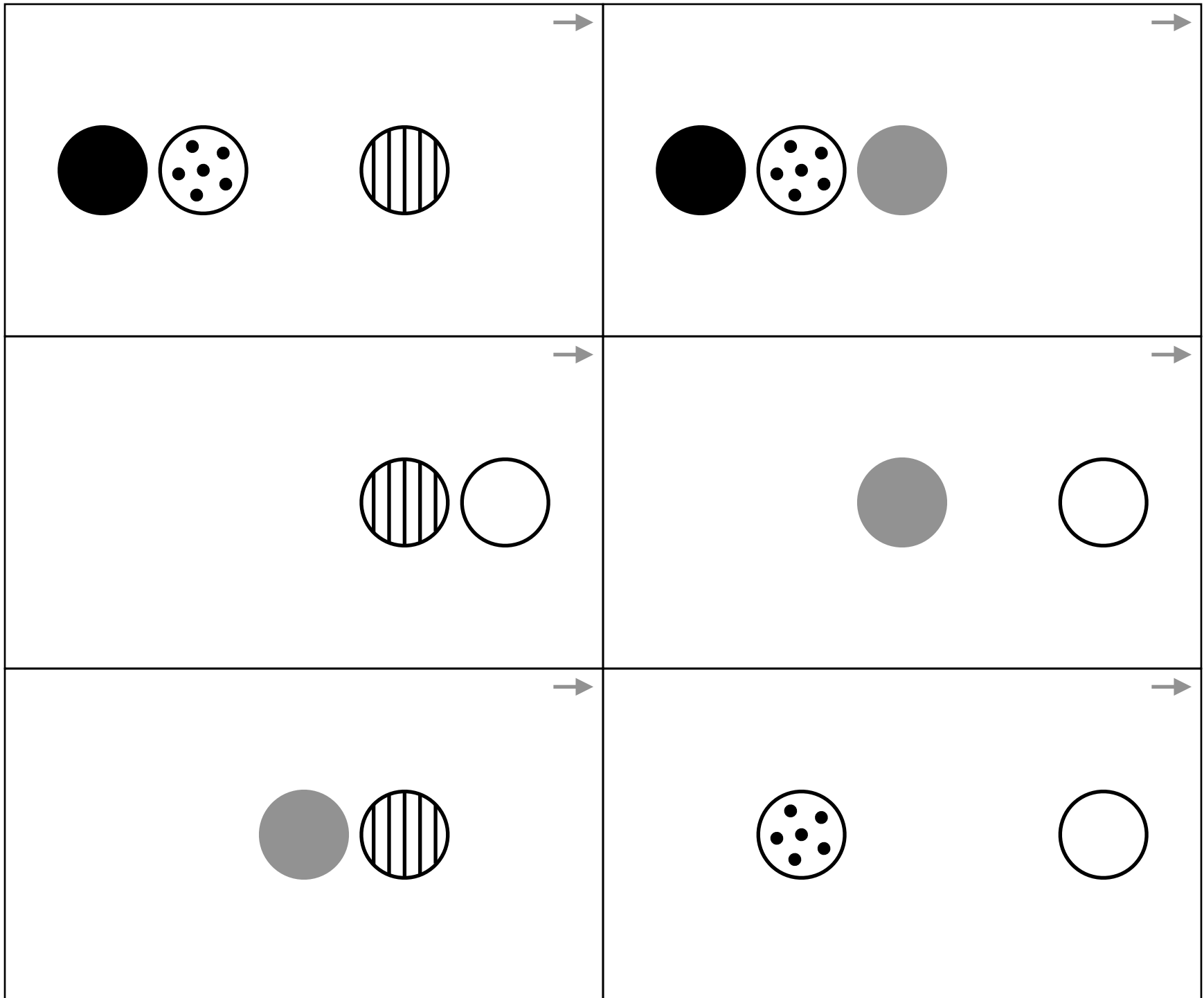
Variations & Extensions

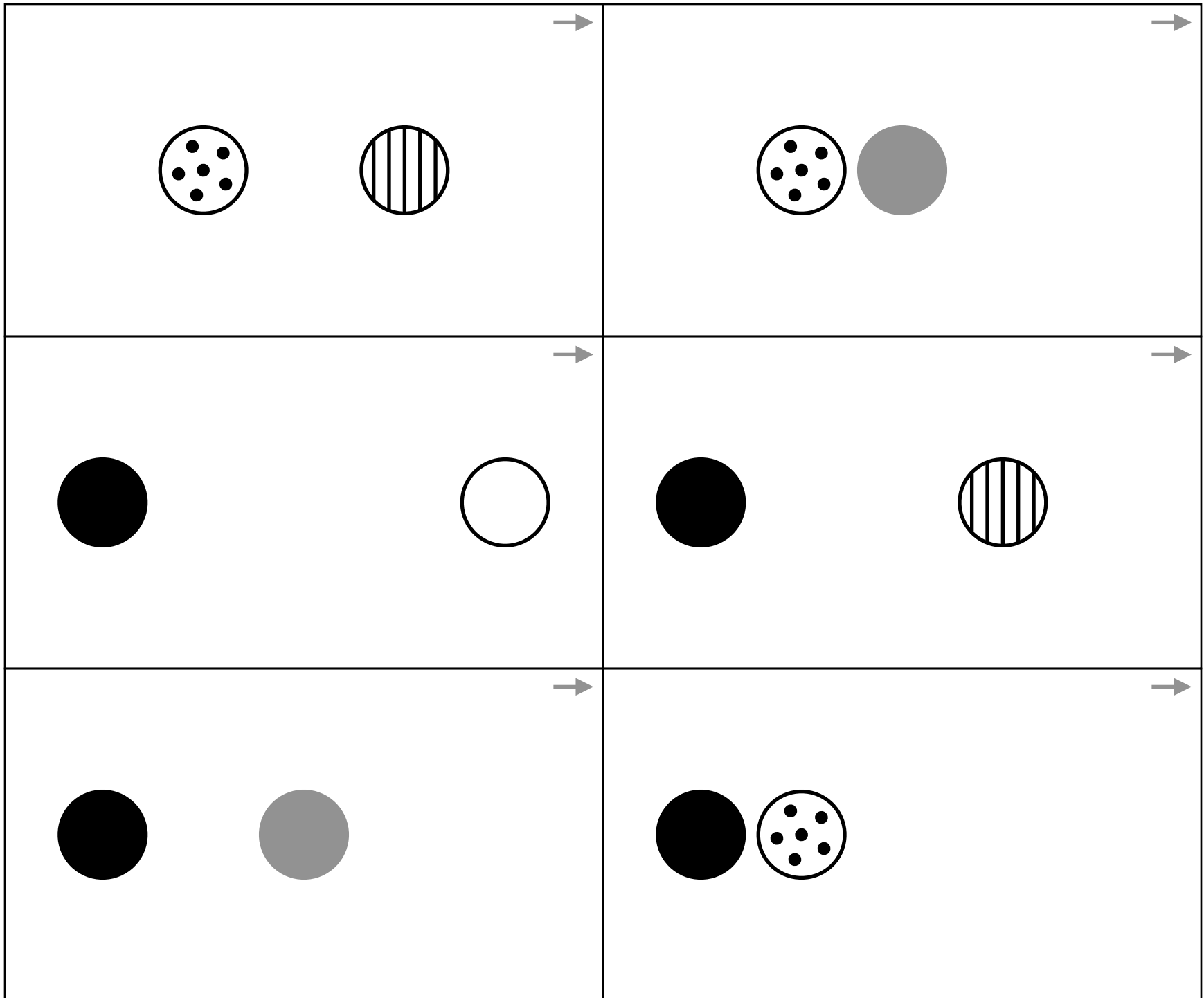
- Remove a random card from the deck, without looking. Can you figure out what card is missing?
- When playing Combo! Part I, give bonus points for taking cards in a certain category (e.g. cards with one dot, cards with a gray dot, ...).
- Record the cards left at the end of Combo! Part I. How many different sets of cards can you find?
- Play a shorter game by setting aside the cards with white dots, leaving a deck of 15 cards. Then what is left at the end of Triad! ? How many cards are left at the end of Combo! Part I?
- Investigate a smaller system of one, two, or three patterns by setting aside the extra cards. How many cards are left at the end of playing the games with these systems? Can you make an addition table for each system?

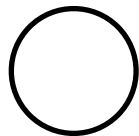
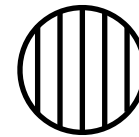
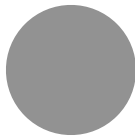
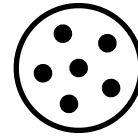
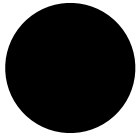












I wonder...

- Does order matter when adding two cards?
- In the integer number system, 0 plus any number is the same number. What is the equivalent of 0 in the card system?
- In the integer number system, every number has an opposite so that the number and its opposite add to 0. What is the opposite of a card in the card system?
- What is left at the end of a game of Triad? Is it always the same cards? Is it always the same number of cards?
- How many cards are left at the end of Combo! Part 1? Why?
- Is every card a sum of cards on the table in Combo! Part 2? Why?
- What else do you wonder?