



NUMBER RELATIONSHIPS AND DISTANCE FROM ZERO

Name: *Farthest From*

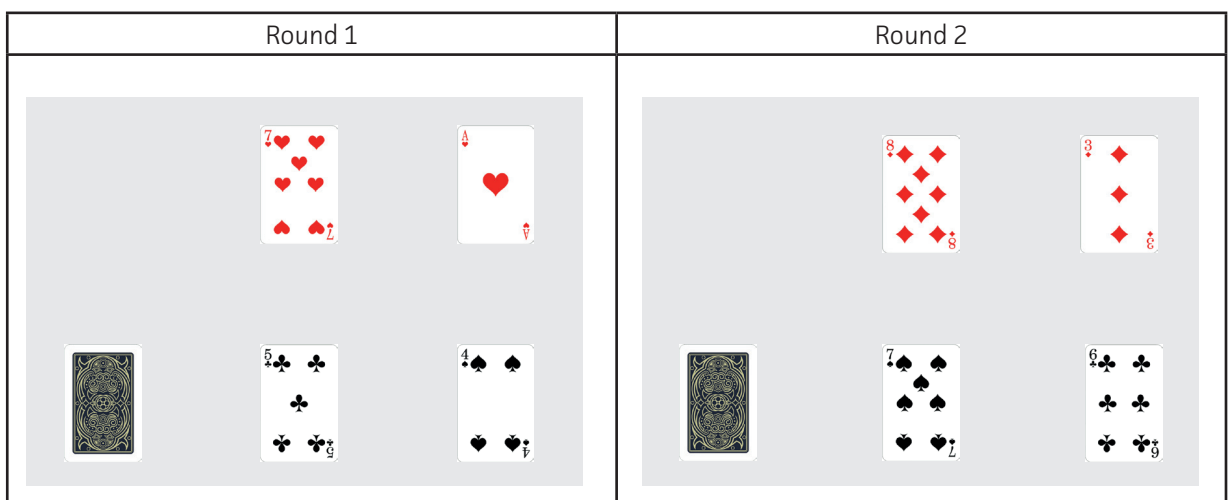
Type: *Game*

About the Game: *Farthest From* is a game that practices combining positive and negative numbers by leveraging opposites and finding zero. Skill with this concept builds toward reasoning strategies including Make a Zero and Use an Inverse Operation. The game can be modified so that students work with 3-digit integers (e.g., -367) and eventually rational numbers including -3.67 , -36.7 , or $-3\frac{6}{7}$. Students can play independently, attempting to reach the goal in the fewest deals or through other challenges. Encourage students to use or draw number lines to support their developing understanding of the distance from zero.

Materials: A deck of playing cards with face cards and tens removed

- Directions:**
1. Separate red suits (diamonds and hearts) from black suits (clubs and spades).
 2. Player 1 uses the red-suited cards, which represent negative numbers. The other player uses the black-suited cards, which represent positive numbers.
 3. Players shuffle their cards and flip two of them over creating a 2-digit number as far from zero as possible.
 4. The player who is farthest from zero earns the number of points represented by combining their number with their opponent. For example, Player 1 makes -71 and Player 2 makes 54 . Player 1 earns -17 points because -54 and 54 make a zero pair and there is -17 remaining.
 5. After the turn, players shuffle their cards and deal again. They add onto their total.
 6. The first player to reach their goal (-100 for Player 1 and 100 for Player 2) wins the game.

For example, Player 1 is dealt an ace and a 7 rearranging the cards to make -71 . Player 2 uses their 5 and 4 to make 54 . -71 and 54 make -17 . After round 1, Player 1 has -17 with a goal of -100 . The cards are shuffled and dealt. Player 1 makes -83 and Player 2 makes 76 . Player 1 scores -7 points for round 2 and adds that to round 1 (-17) now with a score of -24 . The game continues until Player 1 reaches -100 or Player 2 reaches 100 .



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