## Play Common Denominator War

If you have a child who is balking at fractions, a game of Common Denominator War can help! Finding the least common denominator (LCD) of two fractions is one of the basic skills needed to work with fractions. You can find the common denominator of two fractions by finding the smallest number that is a multiple of both of them (lowest common multiple). This activity will give children plenty of practice in figuring out the lowest common multiple of two numbers.



## What You Need:

- Index cards
- Permanent marker

## What You Do:

- 1. Write numbers on at least 20 index cards, making sure that most of the numbers are not prime. For example, you might choose numbers such as 8 (which has the factors 2 and 4) or 9 (which has 3 as a factor) more often than 7 or 11, which are both prime. Most of the numbers should be between 1 and 20, with a few larger ones that have a lot of factors (e.g., 20, 24, 30).
- 2. Divide the pile of index cards in half into two smaller piles, and give each player one of these smaller piles.
- 3. Both players call out "1, 2, 3...war!" and simultaneously turn over the top card in their piles and place it between them.
- 4. The goal: as quickly as each player can, calculate the lowest common multiple of the numbers on the two cards, and call it out.
- 5. The first player to call out the correct lowest common multiple wins the round and gets to add both of the cards to the bottom of her pile. Repeat Steps 3 and 4 for the next round.
- 6. The game ends when one player runs out of cards. The other player is the winner.

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