Multiplier Magic

Match different representations of the same multiplication and repeated addition expressions in this fast-paced game of rummy.

Strands:

Number & Quantity	X
Algebra	
Functions	
Geometry	
Statistics & Probability	

Materials:
- *Multiplier Magic* cards

Where:

Outside	
Inside	X
On-line	
On-site	

Set-Up:
- Deal seven to ten cards to each player depending on the number of players.
- Place the remaining cards face-down in the center of the table. Flip up the top card to start a discard pile.
- The player to the left of the dealer plays first.

**Object of the Game:** Match as many multiplication representations as you can.

On Your Turn:
1. Check your hand for cards that represent the same multiplication expression.
2. Pick up the top card from the deck or the top card on the discard pile.
3. If at least 3 cards in your hand match, place them face-up in front of you.
4. You may play on other players' matches once you have laid down a set of three matching cards.
5. Discard one card from your hand. Your turn ends. Play moves to the left.
6. Play continues until a player discards the last card in the player's hand.
7. After a player goes out each player has one more turn.

To Win: The first person to go out wins the game. If more than one person goes out in the same round, the game ends in a tie.

Think About It:
1. Why is 2 x 3 equivalent to 2 + 2 + 2?
2. How is multiplication related to area?
3. Compare the representations. How are they different? How are they the same?
4. Is it OK to match the two cards below? Give a mathematical argument supporting "Yes" and another supporting "No."

Four groups of three

How many legs?
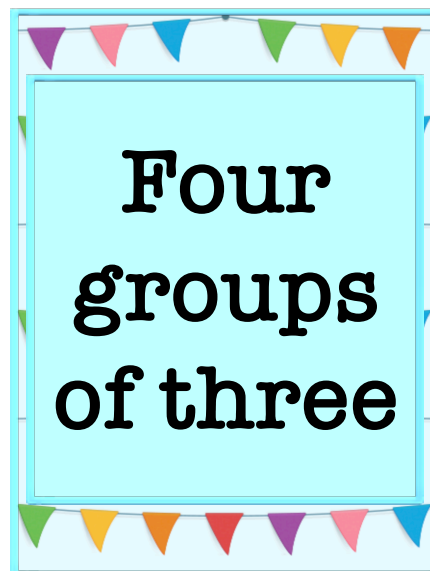
Variations:

Multiplier Magician: Remove the numeric expressions from the *Multiplier Magic* deck. Add the *Multiplier Magician* card to the deck. Play as 'Old Maid' with the exception that the player ending the game with the *Multiplier Magician* wins!

Team Rummy: Partners play together to use all of their cards. They may only play on each other's matches. The team that goes out first wins.

I ♥ Multiplication: Deal out all but one card. The dealer plays the remaining card to start the game. Each player, in order, must play a card that matches the multiplication expression led. Context cards (those with pictures on them) win each hand in which they are played. In the case where 2 context cards are played in the same trick, the first to be played wins the hand. A player who wins a trick leads the next trick. If all context cards have been played, players take turns leading the next trick until all cards have been played. A player earns 0 points if the player takes all of the context cards; all other players earn 16 points. If more than one player wins a hand with a context card, all players earn a point for each context card they take. Lowest score wins.

Multiplication Uno: Deal out the same number of cards as the number of players. The dealer flips up a card. Play moves to the left. In turn, play a card that matches the multiplication fact on the turned-up card. If you cannot play, draw a card. If the card matches, play it, otherwise, you must wait a turn. If no player can play, flip another card and continue. If a player has one card left, say "Uno" to let other players know you are close to going out. The first person to go out wins.

Helpful Hints:

- To help make sense of your cards, try to verbalize what numeric representations your cards match.
- Organize cards by placing the same representations together in your hand.