

3-Digit Dare: Can You Go Higher?

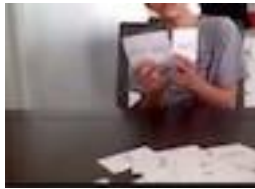
Reimagined by Natalie Lubenow

Level: Elementary (Grades 3 to 7)

Concepts: Number Sense & Probability

Materials: ace (1) – 9 in each suit from a standard deck of cards (36 cards after removing 10s, Face Cards, and Jokers) / alternate card decks may also be used e.g. UNO (use 0-9)

Players: 2-6 (more players? use additional card decks)



How to Play

1. Shuffle the cards and then spread them out face down on the table to create a picking pond.
2. Each player chooses 3 cards.
3. Arrange your cards to make the largest, 3-digit number possible.
4. Decide whether to keep your cards, swap 1 card, or swap 3 cards.
5. If you want to swap: Remove your 1 or 3 cards and mix it/them back into the picking pond. Choose 1 or 3 new cards from the picking pond and then make your new number.
6. After all players have had a turn to adjust their hand, players show their cards and read their number aloud. The greatest 3-digit number wins.

Exploration, Meaning, & Reflection

I wonder...

Have I made the greatest number I can with my cards?

Is my number big enough to win the game? Can I go higher?

Does it make more sense to swap 0, 1, or 3 cards? Why?

Can I think of a strategy to help me decide what to do?

What can I learn from my previous choices? Will that information help me now? Why?

Did my swap increase or decrease my number?

Other Ways to Play

1. The player with the greatest number in a round takes the other players' cards. Play until there are no cards left.
2. No swaps allowed.

3. Take a card from another player's hand (without looking at what card you are picking). That player then takes a card from a different player or chooses one from the picking pile.
4. Use more than one deck of cards.
5. Create smaller, larger, or decimal numbers (e.g. 2-digit, 4-digit, hundredth place, ...).
6. Solitaire: Try to beat your Personal Best (PB).
7. Each player uses their own deck to play remotely with a friend or family member.



Extensions & Discussion Question Examples

How did you decide whether to keep or swap?

Did taking a risk work out in this round? Why?

Do you have a strategy for playing this game?

Did you use the same strategy for every round? Why?

Estimate/calculate the difference between the highest and lowest numbers in the round.

How does your 3-digit number compare to the winning number?

What was your personal best (PB) from all of the rounds?

What was the greatest number created in the game?

How does your PB compare to the highest score in today's game?

Write down your number for each round. At the end of the game, arrange your numbers from least to greatest or greatest to least.

What is your number range for today's game?

Resources

<https://www.mathcoachscorner.com/2016/08/triple-digit-dare-engaging-place-value-game/>

*This blog post was the inspiration for the game I presented at our Virtual Family Math Fair.

<https://www.weareteachers.com/math-card-games/>

www.fatherly.com/play/the-best-card-games-for-kids/

<https://www.kidspot.com.au/things-to-do/kids-games/indoor-play/snap-12-classic-card-games-to-teach-the-kids/news-story/1d153893aee53908749c1377c588928c>