

# Puzzle of the Week

## Card Deck Ordering – 1

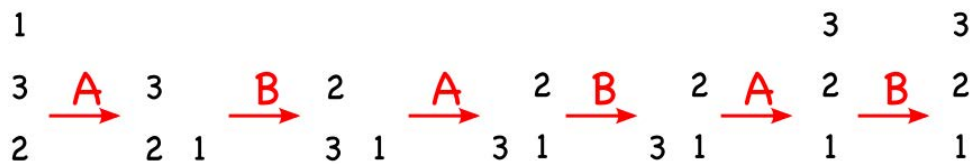
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**Two Steps:**

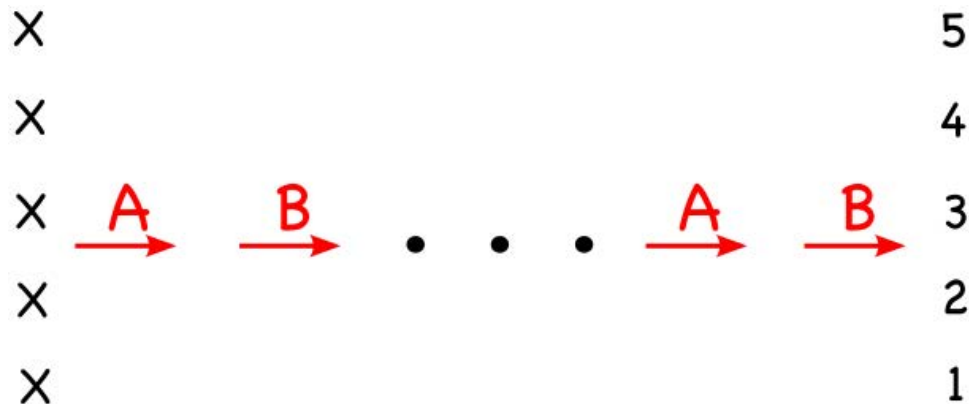
**Step A:** Remove the top card from the stack of cards and place it on top of the discard pile.

**Step B:** Move the new top card of the stack to the bottom of the stack.

**Example:** if you start with a stack of cards ordered 1 - 3 - 2 and then repeatedly use the Two Step process, the result is a discard pile of cards ordered from largest to smallest: 3 - 2 - 1.



**THE CHALLENGE:** Take cards numbered 1 to 5 and stack them in some way so that if you repeat the Two Steps over and over with that stack, you will end up with a discard pile of cards in order from 5 down to 1.



**EXPLORATION:** Can you do this for decks with cards from 1 to 6, 1 to 7, or even higher? What patterns do you notice?