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APCS2 pd02

HW#04: So Easy, Even a Caveturtle Can Do It

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Turtle Sorting Algorithm

1. Two turtles are given the two halves of the unsorted deck.
2. Each of the original turtle will take one card from the top of their pile and pass the rest of the unsorted to a new turtle.
3. Each new turtle receiving the unsorted pile will subsequently take one card from the top and pass the reducing pile to other new turtles.
4. Repeat step 3 until the new turtles receiving the pile will only have to take one card.
5. At this point, each turtle should have only one card, meaning that their list is sorted. The last turtles who received the last cards will return their card to the turtle who gave them it, the second to last turtle.
6. The second to last turtle should sort the two cards that they now possess and then return that pile to the person that they received their cards from.
7. Repeat step 6 until the entire pile returns back to the two original turtles who were initially given the halves of the deck.
8. The two halves should be sorted by now. Apply the merging algorithm to combine the two halves together in one sorted deck.