

- Two people want to withdraw $\text{€}n \leq 10\,000$ from a cash machine.
- Machine can dispense coins and notes of values $\text{€}1$, $\text{€}2$, $\text{€}5$, $\text{€}10$, $\text{€}20$, $\text{€}50$, $\text{€}100$, $\text{€}200$, and $\text{€}500$.
- Check if there exists a way of dispensing $\text{€}n$ that cannot be split evenly into two piles of $\text{€}n/2$.
- Output the coins and notes dispensed such that they cannot be split evenly, or report that the split is always possible.



For $n = 52$, the machine could dispense
a $\text{€}50$ note and $\text{€}2$ coin.

Photo by Jeroen Op de Beek