Mathematics Problem of the Week

Christmas Market Puzzle

Problem Number: 291
Posted on Monday, Jan 16th, 2017
Submitted by noon, Monday, Jan 23rd 2017

You pass by a vendor in a Christmas market where two people are betting whether or not a blind-folded man can fulfill the following task:

He is handed twenty $5 bills and told that exactly 8 of the bills have front side up (the size with Sir Laurier). He is asked to divide those bills into two piles, each with the same number of bills with front side facing up.

He can't peek, get help, or damage the bills. But he may use any strategy that occurs to him to do so. For example, he can count the numbers, divide into any number of piles, flip any bill, combine multiple piles together, etc..

You, after giving it some serious thought, decide to bet that the blind-folded man can fulfill the task. How would he do it?