The Puzzler

Suppose you are seated at a table with a large number of pennies on it, exactly 10 of which are "heads up". (All the others are "tails up".) Your job is to divide all of these pennies into two piles so that each of them features the exact same number of "heads up". So, far so good. Now comes the catch: you are blindfolded throughout; you never saw any of the pennies, and you never will.

Answer:

Separate 10 pennies at random and turn them all over. If there were h heads among them, then there are (10-h) heads now; exactly the same amount of heads as in the remaining pile!