

PROBLEM 3

Three men in a cafe order a meal the total cost of which is \$15. They each contribute \$5. The waiter takes the money to the chef who recognizes the three as friends and asks the waiter to return \$5 to the men.

The waiter is not only poor at mathematics but dishonest and instead of going to the trouble of splitting the \$5 between the three he simply gives them \$1 each and pockets the remaining \$2 for himself.

Now, each of the men effectively paid \$4, the total paid is therefore \$12. Add the \$2 in the waiters pocket and this comes to \$14....

So, where has the other \$1 gone from the original \$15?

ANSWER

The payments should equal the receipts. It does not make sense to add what was paid by the men (\$12) to what was received from that payment by the waiter (\$2)

Although the initial bill was \$15 dollars, one of the five dollar notes gets changed into five ones. The total the three men ultimately paid is \$12, as they get three ones back. So from the \$12 the men paid, the owner receives \$10 and the waiter receives the \$2 difference. $\$15 - \$3 = \$10 + \2