

E-Problem **3** [Please give me chillar!]

In 1948, you entered a ration shop and asked to change a single dollar for coins. The cashier said: "I am sorry, but I can not change it with the coins I have." Then you asked for change of 50 cents, and the cashier replied: "I am sorry, but I can not change it with the coins I have." You then asked for change of 25 cents, then 10 cents, then 5 cents but for all these requests the cashier kept replying: "I am sorry, but I can not change it with the coins I have." Finally, you got upset and asked: "Do you have any coins at all?" The cashier replied: "Yes ... I have Rs. 1.15 in coins." The question is: what coins were in the cash register?

- Argue why the solution is unique.
- What is the maximal amount the cash register could contain supposing that the cashier cannot change one rupee? What is the minimal amount?
- The cashier said that he has exactly 7 coins in the cash register, Can you find out what coins he has?
- Is there also a solution with 8 coins?