

The Game Maestra presents you with nine gold coins and tells you that exactly one of them is counterfeit, and weighs slightly less than the other eight. She gives you a balance scale with the coins and challenges you: "Identify the counterfeit coin using the balance scale only twice."

Once you answer this challenge though the Game Maestra bursts out "Ha! That was simply a warm up." She takes those nine coins, throws them out the window, and pulls twelve silver coins from her pocket and challenges you: "Identify the counterfeit coin among these using the balance scale only three times. And this time, I want *you* to tell *me* whether the counterfeit coin is heavier or lighter than the other eleven."