Maths Circle Explorations: Session 5

TIFR, Mumbai

24th December 2021

Problem 2

There are 100 coins weighing 1, 2, or 3 grams that are visually alike. If there is at least one coin of each type, explain how to make three piles each of different type using using only a balance scale. What is the least number of trials of the balance scale required to do so?

Instead of 100 coins, generalize the problem for n coins. Make a conjecture for least number of trials of balance scale.