

Puzzle of the Week

Pan Balance – 3

A pan balance tells you when its two sides are carrying the same amount of weight or whether one side is heavier than the other.

THE CHALLENGE: You have 25 coins. All the coins but one weigh the same amount. The remaining coin is a counterfeit and is just a tiny bit lighter or heavier (you don't know which). Using just two weighings, determine whether the counterfeit is lighter or heavier.



EXPLORATION: How does your strategy change if you start with a different number of coins? Is two weighings always enough? Is the strategy different for different numbers?