

Gold Coins

You are in a room with an amount of bags (more than two), each containing an amount of (what appear to be) gold coins (more than two). One of the bags, however, contains coins that look exactly like gold coins, but they are fake. The only difference is the weight of the coins. The fake coins have a different weight than the real gold coins.

You need to determine which bag of coins contains the fakes. You have a “Penny Scale”, which is a scale that will allow you to get a weight **once** for a cost of a penny. You have **just one** penny for the scale. The penny scale will dispense a small card with the weight of the object(s) that is (are) on the scale.

What are the **unknown variables** in this problem?

What are the **known** variables?

How do you start to solve this problem – what’s the first step?