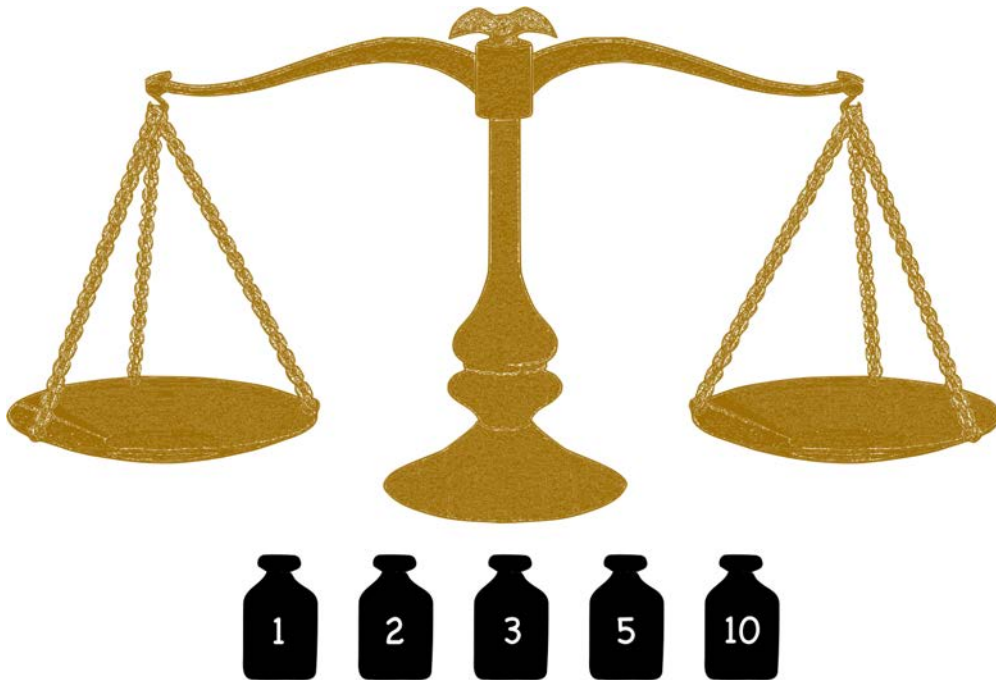


Puzzle of the Week

Pan Balance With Weights – 6

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 would like to be able to weigh anything that is a whole number of ounces from 1 ounce up to 40 ounces. If you can put weights on either side or both sides of the pan balance, what is the fewest number of weights that will make this work and what will the weights be?



EXPLORATION: How does your answer change if you want to be able to weigh anything between 1 ounce and 50 ounces? How about other ranges? Are there some ranges where there is only one best answer, and other ranges where there are many?