Problem Statement:

We have an array of weights. The task is to divide the weights into two groups where:

1) all items in group 1 must be lighter/equal than all items in group 2 (heaviest weight of 1 <= lightest weight of 2)

2) total weight of both groups should be equal

3) some weights can go unassigned

4) each group must have at least 1 weight

How many different weight distributions we can have?

As an example, the value\_array = {1,5,3,4,5}

And in this example, valid divisions are:

Group 1 Group 2

1,3 4

1,4 5 (first 5)

1,4 5 (second 5)

5 (first 5) 5 (second 5)

5 (second 5) 5 (first 5)

Note that each '5' is a different weight and needs to be accounted for separately.

There are 5 ways of dividing the weights into 2 groups, according to the specs.