

```
In [ ]: def fractional_knapsack(value, weight, capacity):
        index = list(range(len(value)))
        ratio = [v/w for v, w in zip(value, weight)]
        index.sort(key=lambda i: ratio[i], reverse=True)

        max_value = 0
        fractions = [0]*len(value)
        for i in index:
            if weight[i] <= capacity:
                fractions[i] = 1
                max_value += value[i]
                capacity = int(capacity - (weight[i] * fractions[i]))
            else:
                fractions[i] = capacity/weight[i]
                max_value += value[i]*capacity/weight[i]
                break

        return max_value, fractions

In [ ]: n = int(input('Enter number of items: '))
        value = input('Enter the values of the {} item(s) in order: '
                        .format(n)).split()
        value = [int(v) for v in value]
        weight = input('Enter the positive weights of the {} item(s) in order: '
                        .format(n)).split()
        weight = [int(w) for w in weight]
        capacity = int(input('Enter maximum weight: '))

        max_value, fractions = fractional_knapsack(value, weight, capacity)
        print('The maximum value of items that can be carried:', max_value)
        print('The fractions in which the items should be taken:', fractions)

The maximum value of items that can be carried: 7.5
The fractions in which the items should be taken: [0.5, 1, 1]
```