COMP6047 - Algorithm and Programming

Session 6 Recursive

Case 1 – The Robin Hood

Problem Statement

One day, Robin Hood went to a village to steal goods from rich businessmen to distribute to the poor. in the village the goods are stored in sacks. and each sack weighs differently. Robin hood carries a large bag that has a capacity of **W**. robin hood wants to take as many items as possible so that they can be distributed. Help Robin Hood to calculate the value of the items taken.

Format Input

The first line shows the number of sacks (**n**). The second row shows the weight of each sack (**sw[]**).The third line shows the value of each sack (**sv[]**). And the last line shows the max capacity of Robin Hood bag capacity (**W**).

Format Output

Print the max value of the item that Robin can take.

Constraints

- n, sw[], sv[], W are integer.
- - 999999 ≤ n, sw[], sv[], W ≤ 999999

Test Case

Sample Input	**Sample Output**
4 10 20 30 40 50 100 200 30 70	350
3 60 20 36 77 12 65 30	12