**Algorithms with Java: Exam Retake 08-08-2020**

This document defines the exam for ["Algorithms – Advanced (Java)" course @ Software University](https://softuni.bg/trainings/2992/algorithms-advanced-with-java-june-2020). Please submit your solutions (source code) of all below described problems in [Judge](https://judge.softuni.bg/Contests/2540/Algorithms-Advanced-with-Java-Exam-Retake-08-August-2020).

1. **Battle Points**

Getting battle points is easy but you have limited amount of energy.

You will be given **enemies** as **sequence** of **integers** on **two** **separated** **lines** the first line will hold the **energy** **required** to **defeat** **each** **enemy**, then on the **second** **line** the **battle** **points** you get for **defeating each enemy**.

On the **third** line you will get **your** **energy** points.

You have to **print** **the** **maximum** **battle** **points** you can get by **choosing** **which** **enemy** to defeat at what cost.

## Input

* The **first line** holds the energy **required** to **defeat** **each** enemy
* On the **second line**, you will receive the **battle** **points** **gained** by **defeating** each enemy
* At the third line you will receive the **initial** **energy** **points** you have

## Output

* Print the **maximum** **battle** **points** you can obtain

## Constraints

* The input will be only valid **positive** **integers,** as well as the number of enemies **[1…300]**

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 4 2 1 6 4 7 5  6 3 4 1 5 5 2  1 | 4 |
| 3 7 2 2 1 2 7  6 3 4 7 3 3 5  4 | 11 |

*“Our minds are all we have. They are all we have ever had. And they are all we can offer others.”*

*― Sam Harris*