Day 11: 2D-Arrays + More Review!

Problem Statement

Welcome to Day 11! Review everything we've learned so far by making a library catalogue in this video, or just jump right into the problem. We haven't discussed *2D Arrays* in this series, but they're very similar to the regular *1D Arrays* you're likely familiar with. If you are working in Java, check out Oracle's documentation. Similar documentation for *2D Arrays* in other popular languages is easily found on the internet.

Given a \$6 \times 6\$ 2D Array, \$A\$:

We can find \$16\$ hourglasses in \$A\$; we define an hourglass in \$A\$ to be a subset of values with indexes falling in this pattern in \$A\$'s graphical representation:

```
a b c
d
e f g
```

The *sum of an hourglass* is the sum of the values within it.

Your task is to calculate the sum of every hourglass in some *2D Array*, \$A\$, and print the *largest value* (maximum of the sums) as your answer.

Input Format

There are \$6\$ lines of input, where each line contains \$6\$ space-separated integers describing 2D Array \$A\$; every value in \$A\$ will be in the inclusive range of \$-9\$ to \$9\$.

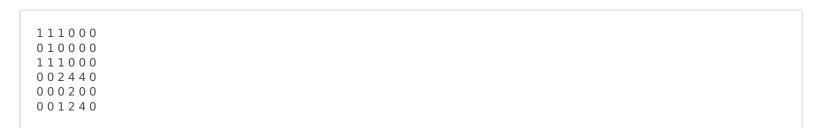
Constraints

\$-9 \le A[i][j] \le 9\$ \$0 \le i,j \le 5\$

Output Format

Print the largest (maximum) hourglass sum found in \$A\$.

Sample Input



Sample Output

Explanation

Sample Input \$A\$ contains the following hourglasses:

The hourglass with the maximum sum (\$19\$) is:

```
2 4 4
2
1 2 4
```