

# Max's Anger Contest Series 1 P1 - Hunger Bar

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**Time limit:** 0.1s    **Memory limit:** 256M

Java: 0.2s

Python: 0.2s

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Since Bob has been playing too much Minecraft, he has been viewing everything in terms of Minecraft, including whenever he is hungry.

He visualizes this hunger with a hunger bar with  $H$  hunger points. If he eats  $A$  apples, he will gain at most  $\min(H, A)$  hunger points since he only has at most  $H$  hunger points.

To further this visualization, Bob will lose 1 hunger point every second.

He cannot have negative hunger points.

Initially, he has 0 hunger points when he eats the apples.

After eating the  $A$  apples instantly, he will wait  $S$  seconds and wants to know the state of his hunger bar.

Can you help him determine his remaining hunger points?

## Constraints

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### Subtask 1 [50%]

$$1 \leq H, A, S \leq 10^5$$

### Subtask 2 [50%]

$$1 \leq H, A, S \leq 10^9$$

## Input Specification

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The first line will contain an integer,  $H$ , the number of hunger points he has available.

The second line will contain an integer,  $A$ , the number of apples he will eat.

The third line will contain an integer,  $S$ , the number of seconds he will wait.

## Output Specification

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Output the number of hunger points he will have after eating  $A$  apples and waiting  $S$  seconds.

## Sample Input 1

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```
5
3
1
```

## Sample Output 1

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```
2
```

## Explanation for Sample 1

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Bob eats the 3 apples and gains 3 hunger points. Then, he waits for 1 second and loses 1 hunger point, resulting in 2 hunger points.

## Sample Input 2

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```
10
20
5
```

## Sample Output 2

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```
5
```

## Explanation for Sample 2

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Bob eats the 20 apples and gains 10 hunger points since he only has 10 hunger slots. Then, he waits for 5 seconds and loses 5 hunger points, resulting in 5 hunger points.

## Sample Input 3

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```
1
50
1000
```

### Sample Output 3

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0

### Explanation for Sample 3

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Bob eats the 50 apples and gains 1 hunger point since he only has 1 hunger slot. Then, he waits 1 000 seconds and loses 1 hunger point, resulting in 0 hunger points.