CHALLENGE INFORMATION

You have already solved this challenge ! Though you can run the code with different logic !

Course	JAVA	Session	Classes and Objects	Question Information	Level 1 Challenge 49

Problem

Question description

Generally, the speed of light is c m/s, and acceleration due to gravity is g m/s^2

Find the smallest height (in meters) from which Alfred should jump such that during his journey down only under the effect of gravity and independent of any air resistance, he achieves the speed of light and verifies Einstein's theory of special relativity.

Assume he jumps at zero velocity and at any time, his velocity (vcla) and depth of descent (H) are related as $v^2 = 2 \times g \times h$

Constraints:

$1 \leq g \leq 10$

$1000 \leq c \leq 3000$

$2 \cdot g$ divides c^2

Input Format:

single line of input contains two integers g and c

Output Format:

Output in a single line the answer to the problem. We can see that under the constraints, the answer is an integer.

Test Cases

Logical Test Cases

Test Case 1

INPUT (STDIN)

```
7 1400
```

EXPECTED OUTPUT

```
Minimum Height: 140000
```

Test Case 2

INPUT (STDIN)

```
5 1000
```

EXPECTED OUTPUT

```
Minimum Height: 100000
```

Mandatory Test Cases

Test Case 1

KEYWORD

```
class MinHeight
```

Test Case 2

KEYWORD

```
MinHeight gravity=new
MinHeight();
```

Test Case 3

KEYWORD

```
MinHeight speedoflight=new
MinHeight();
```

Test Case 4

KEYWORD

```
MinHeight height=new
MinHeight();
```

Test Case 5

KEYWORD

```
gravity.x= sc.nextInt();
```

Complexity Test Cases

Test Case 1	Test Case 2	Test Case 3
CYCLOMATIC COMPLEXITY	TOKEN COUNT	NLOC
1	141	22

Code Editor

You have already solved this challenge ! Though you can run the code with different logic !

Code Editor | JAVA SE 1.8 | Light Theme

```java
import java.util.Scanner;
public class Class332241010280 {
     static class MinHeight {
          int x,y;
}
     public static void main(String[] args) {
     Scanner sc = new Scanner(System.in);
     MinHeight gravity=new MinHeight();
     MinHeight speedoflight=new MinHeight();
     MinHeight height=new MinHeight();
     gravity.x= sc.nextInt();
     gravity.y = sc.nextInt();
     int h = (gravity.y * gravity.y) / (2 * gravity.x);
     System.out.println("Minimum Height: " + h);
}
}
```

Custom Input (stdin) | T1 | T2

```
7 1400
```

Output | MATCH T1 | MATCH T2

```
Command failed: javac
Class332241010280.java
```

Complexity Analysis

Test Case Status