

UCF Local Contest (Final Round) — August 31, 2024

Christmas Tree Adapter

filename: adapter

Difficulty Level: Easy

Time Limit: 5 seconds

Adapters (Transformers) are used with many devices (e.g., cell phones) to convert the 110 volt coming out of the outlet. The adapter for Dr. Orooji's Christmas Tree broke and Dr. O could not find that model online or in stores. The tree adapter was showing the “ampere” but the adapters online were showing “watt” and “volt”! So, Dr. O had to refer to the “Electricity 101 Book” to figure out what to buy:

Watt: measure of power

Volt: measure of electric potential

Ampere: measure of current

$$\text{watt} = \text{ampere} \times \text{volt} \rightarrow \text{ampere} = \text{watt} / \text{volt}$$

The Problem:

Given the ampere for Dr. O's Christmas tree, and the watt and volt for a candidate adapter, determine if the candidate adapter will work with the tree. The adapter will work if its ampere is greater than or equal to the tree's ampere.

The Input:

The first input line contains an integer, a ($1 \leq a \leq 20$), indicating the ampere for the Christmas tree. The second input line contains two integers: w ($1 \leq w \leq 2000$), indicating the watt for the candidate adapter and v ($1 \leq v \leq 100$), indicating the volt for the candidate adapter. Assume that the input will not result in fractions in divisions.

The Output:

Print 1 if the candidate adapter will work with the tree, 0 (zero) otherwise.

Sample Input

Sample Output

5 60 10	1
7 80 20	0
3 120 40	1