

Determine the Day of the Week

Given a date as three numbers (year, month, day), write a program to compute the corresponding day of the week. Use the following algorithm to determine the day of the week (0 for Sunday, 1 for Monday, etc.):

- If the month is less than 3, add 12 to the month and subtract 1 from the year.
- Let $a = 2m + 6(m + 1) // 10$
- Let $b = y + y // 4 - y // 100 + y // 400$
- Let $f1 = d + a + b + 1$
- Let $f = f1 \% 7$

The program should read the date as three numbers separated by spaces and output the corresponding day of the week.

Function Description

Complete the 'calculate_day_of_week' function.

'calculate_day_of_week' has the following parameters:

- `y` (int): the year
- `m` (int): the month
- `d` (int): the day

Prints:

- The corresponding day of the week (0 for Sunday, 1 for Monday, etc.).

Input Format

A single line of input containing three integers, `y`, `m`, and `d`, separated by spaces.

Constraints

- The year `y` is a positive integer.

- The month m is an integer between 1 and 12.
- The day d is an integer between 1 and 31.

Sample Input

2021 6 24

Sample Output

4

Explanation

For the input date June 24, 2021:

- The month is 6.
- Using the given algorithm:
 - Adjusted values are ' $m = 6$ ', ' $y = 2021$ '.
 - $a = 2 \times 6 + 6 \times (6 + 1) // 10 = 12 + 42 // 10 = 12 + 4 = 16$
 - $b = 2021 + 2021 // 4 - 2021 // 100 + 2021 // 400 = 2021 + 505 - 20 + 5 = 2511$
 - $f1 = 24 + 16 + 2511 + 1 = 2552$
 - $f = 2552 \% 7 = 4$
- Thus, the day of the week is 4, which corresponds to Thursday.