Logo

STUDENT REPORT

DETAILS

Name

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EXPERIMENT

Title

ROBO RACE

Description

There is a robot race happening between two robots named Robotop and Robocop. Both the robots reach the starting point to begin the race on a Circular track

Race starts at time T = 0 seconds. Robotop starts the race at T = Xth second and takes exactly N seconds to complete one lap. On the other hand. Robocop starts the race at T = Yth second and takes exactly M seconds to complete one lap.

Your task is to find and return an integer value, representing the least time T (in seconds) at which these two robots meet each other again at the starting point.

Sample Input:

2 3 1 4

Sample Output:

5

Explanation:

X=2, N=3, Y=1, N=4

Robotop starts at T=2 and completes one lap every 3 seconds. Robocop starts at T=1 and completes one lap every 4 seconds. The smallest point where both meet at the starting point is 5 seconds.

Source Code:

```
import math
def find_least_time(X,N,Y,M):
    lcm = (N*M)//math.gcd(N,M)
    T= max(X,Y)
    while True:
        if(T-X) % N == 0 and (T-Y)% M == 0:
            return T
        T+=1
X,N,Y,M = map(int,input().split())
print(find_least_time(X,N,Y,M))
```

RESULT

4 / 5 Test Cases Passed | 80 %