

Spurdo leveling

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Spurdo started playing World of FlagCapt and his team members are planning to raid the new dungeon, but Spurdo's level is too low for this raid.

He decided to level up as fast as he could to get to level Y while his current level is X .

His team told him about the two great mentors, Shadow Colossus and Mecha-Samurai, who could grant him a favor of additional experience.

By default, Spurdo raises his level by 1 everyday.

Spurdo was told that Shadow Colossus's favorite number is W and he grants exactly P number of levels per blessing.

As for Mecha-Samurai, his favorite number is B and he grants exactly Q number of levels per blessing.

Spurdo can get extra experience if his level is divisible by a mentor's favorite number at the beginning of the day.

So, if Spurdo's level is divisible by W , he receives Shadow Colossus's blessing and increases his level by additional P levels at the end of the day.

If his level is divisible by B , he receives Mecha-Samurai's blessing and increases his level by additional Q levels at the end of the day.

If his level is divisible by W and B at the same time, he gets both of the blessings and increases his level by additional $P + Q$ levels at the end of the day.

Spurdo's friends want to know how many days he exactly needs to raise his level to or above X , as well as how many blessings will he receive in total and from each mentor individually.

Spurdo: PLEASE HELP ME EBIN :DDDDD

Input

In the first line, two integers X and Y ($1 \leq X < Y \leq 10^{18}$) are separated by a space — the current and desired Spurdo level, respectively.

In the second line, two integers W and P are given separated by a space ($1 \leq W \leq 10^6; 1 \leq P \leq Y$) — the favorite number of Shadow Colossus and the bonus levels from one workout with him.

In the third line, two integers B and Q are separated by a space ($1 \leq B \leq 10^6; 1 \leq Q \leq Y$) — the favorite number of Mecha-Samurai and the bonus levels from one received glyph.

Output

Print three integers:

1. The minimum number of days it will take Spurdo to reach the level Y or more;
2. The number of training sessions with the Shadow Colossus conducted during this time;
3. The number of glyphs from Mecha-Samurai received during this time;

You can separate numbers with spaces or line breaks.

Example

standard input	standard output
13 50 4 12 5 10	10 2 1

Note

In the first example, Spurdo's levels on each of the days will be a sequence:

13 14 15 26 27 28 41 42 43 44 57