17 **The nightly chat**
11 points

Introduction

Three friends who live in Madrid, Moscow and Tokyo want to chat online after work. Strange as it may sound, they only want to talk when it is dark outside each of their respective homes.

The three friends are asking you to develop a program to know at which times they can chat. Knowing that Madrid is located at GMT+1 (Greenwich Mean Time + 1 hour), Moscow is located at GMT+3 and Tokyo is located at GMT+9, and assuming that in those three cities the dusk (and the dawn) occurs at the same local time, the program has to calculate the first moment (hour and minute in GMT time) and last minute when the three friends can chat.

Since it may be that there's no time in the day where the three friends can chat, the program has to indicate that possibility.

Note: The three friends need to be able to chat for at least 1 minute or it will be considered that there is no window to do so.

As an example, let's consider the case in which the sun goes down at 19:32 and rises again at 08:43. The following will be the respective dusk and dawn times in all three places in GMT:

Local time	Madrid (GMT+1)	Moscow (GMT+3)	Tokyo (GMT+9)	Type
19:32	18:32 GMT	16:32 GMT	10:32 GMT	Dusk
08:43	07:43 GMT	05:43 GMT	23:43 GMT	Dawn

In the table, the "dusk" line can be considered the starting time. While the "dawn" line can be considered the end time.

With these settings, the chat window will be 18:32 to 23:43 always expressed as GMT.

Let's try another example. Let's consider that sundown is at 23:04 and sunrise is at 06:45. The table would then read:

Local time	Madrid (GMT+1)	Moscow (GMT+3)	Tokyo (GMT+9)	Type
23:04	22:04 GMT	20:04 GMT	14:04 GMT	Dusk
06:45	05:45 GMT	03:45 GMT	21:45 GMT	Dawn

As the chat window end time in Tokyo (21:45 GMT) would be earlier than the chat window start time in Madrid (22:04 GMT), it would not be possible to chat that day.

Input

The program will receive the GMT time of dawn and dusk for that day in the format HH:MM.

In the first example the input would be:

```
19:32
8:43
```

Output

The output will be a single line indicating either the beginning and the end times of the chat window with format "HH:MM to HH:MM GMT"

or

```
CANNOT FIND A SLOT
```

if it's not possible to find a chat window.

In the first example, the output would be:

```
18:32 to 23:43 GMT
```

Example 1

Input

```
19:32
8:43
```

Output

```
18:32 to 23:43 GMT
```

Example 2

Input

```
23:04
06:45
```

Output

```
CANNOT FIND A SLOT
```

Example 3

Input

```
21:43
6:56
```

Output

```
20:43 to 21:56 GMT
```