4 SHARKS!

You're trying to enjoy a lovely day at Neptune Beach, but so are the sharks (oh no). Luckily for you, they only come out in certain intervals during the day. But it's spring break and you want to get the most out of your beach day! It's your job to figure out the maximum amount of time you can spend in the water without losing a limb.

In total, there are three types of sharks that will appear throughout the day:

- The pink shark appears every hour, staying for 10 minutes.
- The blue shark appears every other hour, staying for 15 minutes.
- Finally, the purple shark appears every 45 minutes, staying only for three minutes.

Also keep in mind that it takes you five minutes to swim out to the sandbar where the sharks are located, and five minutes to make it back safely to the shore.

You are at the beach from 12:00 PM - 6:00 PM, or a total of 360 minutes.

Also, your buddy is a huge marine biology nerd, but can't make it out today. Help him out by finding at least one hour (Ex: 1:00 PM) where all three sharks are present simultaneously.

Considering all this, in order to have the perfect beach day, you must predict each interval the sharks will appear, determine the longest continuous safe block for swimming in minutes, the maximum time you can swim with the sandbar rule in minutes, and the hour(s) where all three sharks are present.

4.1 Input

The input consists of three lines:

- A list of integers representing the start times (in minutes) when pink sharks appear.
- A list of integers representing the start times (in minutes) when blue sharks appear.
- A list of integers representing the start times (in minutes) when purple sharks appear.

Each integer represents minutes elapsed since 12:00 PM (minute 0).

4.2 Output

Print three lines:

- The length of the longest continuous safe interval (no sharks present), in minutes.
- The maximum time you can safely swim, accounting for the 10-minute round trip to the sandbar.
- All hours (in `H:00pm` format) during which all three sharks are present simultaneously, in ascending order and space-separated.

4.3 Sample Input/Output

Sample Input	**Sample Output**
0 60 120 180 240 300	50 min
0 120 300	177 min
5 125 200 210 220 230 310 320	12:00pm 2:00pm

4.4 Shark Timeline Visualization

Minute	Present Sharks
60	Pink, Blue
61	Pink, Blue
62	Pink, Blue, Purple
63	Pink, Blue, Purple
64	Pink, Blue, Purple
65	Pink
66	Pink
67	Pink
68	Pink
69	Pink
70	
71	
72	