

PROBLEM 2: TIME

For this exercise, you must write a program that accepts a time of day followed by a number of hours, minutes, and seconds to add or subtract from that time. Your program must then output the calculated time.

Your program will receive input as soon as it launches. The first input will be a time of day using 24-hour notation in the format HH:MM:SS. The second input will be a number of hours, minutes, and/or seconds to add or subtract from the given time, in the format (-)HH:MM:SS. Your program must then output the time calculated by adding or subtracting the second input from the first. If the addition or subtraction crosses a day boundary, ignore the difference in the days and output only the resulting time of day. If your program receives an invalid time, it should immediately output the message, "Invalid input." and quit.

*Your program's output must match the examples given below **exactly**. Your program must not prompt for input. Note carefully the spelling, capitalization, punctuation, and spacing of the output. The input that will be given to your program is highlighted in **red**.*

EXAMPLE RUN 1

```
15:22:33
01:22:33
16:45:06
```

EXAMPLE RUN 2

```
01:22:33
-01:22:34
23:59:59
```

EXAMPLE RUN 3

```
24:00:00
Invalid input.
```