

Experiment 01 - Exercise 08: Convert Seconds to Hours/Minutes/Seconds

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Objective

Convert a given number of seconds into hours, minutes, and remaining seconds.

Input

A non-negative integer `total_seconds`.

Output

`hours`, `minutes`, and `seconds`.

Approach

Use integer division and modulo:

- `hours = total_seconds // 3600`
- `rem = total_seconds % 3600`
- `minutes = rem // 60`
- `seconds = rem % 60`

Time Complexity

$O(1)$.