Coding Challenge Level 1 Solution

Let's review the 4-step framework for solving this coding challenge.

1. **Understand and appreciate the problem statement.**

- Did you fully understand the problem?
- Do you know what inputs are required?
- Do you know what the desirable output is?
- Does it give you enough information?

2. **Break down the problem into functions.**

- Define the problem statement into various functions or modules.
- Does each module solve a specific subset of the problem?
- Can the functions/modules be reused?

3. **Apply common patterns or language constructs that you already know for the problem.**

- Do you see a common pattern that you can use?
- Do you see a loop to use or a language function that might make things easy?
- Pseudocode your proposed solution.

4. **Start coding.**

- This is the best place to start really coding.
- Ignore difficult parts for now – begin by solving a simpler sub-part.
- Run the code as you work and let errors show you where you can correct the code.
- Start with input gathering, then processing logic, and then output.
- Compare your solution for its accuracy and completeness relative to the problem statement.
- If time permits, optimize the solution by looking at various alternatives to shorten the code or increase its efficiency.

Javascript Solution

```
function convert(hours, minutes) {
    return (hours*3600) + (minutes*60);
}
```

Python Solution

```
def convert(hours, minutes):
    return hours*60*60 + minutes*60
```

Usage

convert(1, 2) shows the output **3720**

convert(3, 0) shows the output **10800**

Procedure

In the code above:

- We first defined a function called *convert* that would take two inputs.
- The input variables are named *hours* and *minutes*.
- We know that each hour has 3600 seconds (60 minutes * 60 seconds), so we multiply the *hours* variable by 3600.
- We know that every minute has 60 seconds, so we multiply the *minutes* variable by 60.
- Then we sum it together and return the output, which can be displayed by the program.

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