Experiment 'p5_2_c_sorted' Results

December 18, 2025

Experiment outcome: SUCCESS
Bad responses: 0
Responses containing `assume` : 0
Resolution attempts: 1
Hard fails (resolution): 0
Soft fails (resolution): 0
Verification attempts: 1

Problem Specification

Problem name: p5_2_c_sorted
Natural language statement: Write a method returning true if the arguments are sorted, with the smallest one coming first.
Method signature: p5_2_c_sorted(x: real, y: real, z: real) returns (isSorted: bool)

Ensures

- `isSorted == (x <= y && y <= z)`

GenAI interactions

Below you will find all interactions between the 'user' (program) and the 'assistant' (OpenAI).

Program → GenAI

```
You are given the following task to perform in Dafny:

Write a method returning true if the arguments are sorted, with the smallest one coming
    ↪ first.

The signature should be:

method p5_2_c_sorted(x: real, y: real, z: real) returns (isSorted: bool)

The method should respect the following contract:

ensures isSorted == (x <= y && y <= z)

Produce and show only the Dafny body of this method, including the curly braces that
    ↪ surround it. Do not show the signature nor contract. You must not use 'assume'
    ↪ anywhere in your code.
```

GenAI → Program

System fingerprint:
ID: chatcmpl-Co4tcAKLT7PRgnyoK9BmvXS1F68jI
Model: gpt-5.1-chat-latest
Created at: 1766051256
Finish reason: stop
Usage: 284 tokens in, and 33 tokens out

```
{
  isSorted := x <= y && y <= z;
}
```

Final Program

```
method p5_2_c_sorted(x: real, y: real, z: real) returns (isSorted: bool)
       ensures isSorted == (x <= y && y <= z)
{
  isSorted := x <= y && y <= z;
}
```

Total Token Usage

Input tokens: 284
Output tokens: 33
Reasoning tokens: 0
Sum of 'total tokens': 317

Experiment Timings

Overall Experiment started at 1766051257825, ended at 1766051261248, lasting 3423ms (3.42 seconds)
Iteration #1 started at 1766051257826, ended at 1766051261248, lasting 3422ms (3.42 seconds)