

Experiment ‘p5_2_b_allDifferent’ 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_b_allDifferent

Natural language statement: Write a method returning true if the arguments are all different.

Method signature: p5_2_b_allDifferent(x: real, y: real, z: real) returns (allDiff: bool)

Ensures

- `allDiff == (x != y && y != z && x != 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 all different.

The signature should be:

```
method p5_2_b_allDifferent(x: real, y: real, z: real) returns (allDiff: bool)
```

The method should respect the following contract:

```
ensures allDiff == (x != y && y != z && x != 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-Co4tY2V5TCLOGIO8WUgzXh9tX3mOE

Model: gpt-5.1-chat-latest

Created at: 1766051252

Finish reason: stop

Usage: 282 tokens in, and 101 tokens out

```
{  
    allDiff := x != y && y != z && x != z;  
}
```

Final Program

```
method p5_2_b_allDifferent(x: real, y: real, z: real) returns (allDiff: bool)  
    ensures allDiff == (x != y && y != z && x != z)  
{  
    allDiff := x != y && y != z && x != z;  
}
```

Total Token Usage

Input tokens: 282

Output tokens: 101

Reasoning tokens: 64

Sum of ‘total tokens’: 383

Experiment Timings

Overall Experiment started at 1766051254376, ended at 1766051257176, lasting 2800ms (2.80 seconds)
Iteration #1 started at 1766051254377, ended at 1766051257176, lasting 2799ms (2.80 seconds)