

# 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-Co4tY2V5TCIOGIO8WUgzXh9tX3mOE

**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)