

Experiment ‘p6_1_process_array_even_indexed’ 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: p6_1_process_array_even_indexed

Natural language statement: Write a method that takes an array of ten integers and then returns every element at an even index.

Method signature: p6_1_process_array_even_indexed(arr: seq<int>) returns (even_indexed: seq<int>)

Ensures

- `even_indexed == [arr[0], arr[2], arr[4], arr[6], arr[8]]`

Requires

- `|arr| == 10`

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 that takes an array of ten integers and then returns every element at an
→ even index.

The signature should be:

method p6_1_process_array_even_indexed(arr: seq<int>) returns (even_indexed: seq<int>)

The method should respect the following contract:

requires |arr| == 10, ensures even_indexed == [arr[0], arr[2], arr[4], arr[6], arr[8]]

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-Co54onvOlli8tJkMqBQxxmek9xjgm

Model: gpt-5.1-chat-latest

Created at: 1766051950

Finish reason: stop

Usage: 326 tokens in, and 48 tokens out

```
{  
  even_indexed := [arr[0], arr[2], arr[4], arr[6], arr[8]];  
}
```

Final Program

```
method p6_1_process_array_even_indexed(arr: seq<int>) returns (even_indexed: seq<int>)  
  requires |arr| == 10  
  ensures even_indexed == [arr[0], arr[2], arr[4], arr[6], arr[8]]  
{  
  even_indexed := [arr[0], arr[2], arr[4], arr[6], arr[8]];  
}
```

Total Token Usage

Input tokens: 326

Output tokens: 48

Reasoning tokens: 0
Sum of ‘total tokens’: 374

Experiment Timings

Overall Experiment started at 1766051952464, ended at 1766051955350, lasting 2886ms (2.89 seconds)
Iteration #1 started at 1766051952465, ended at 1766051955350, lasting 2885ms (2.89 seconds)