

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: chatmpl-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)