

rise4fun.com/dafny

dafny Microsoft Research

Is this program correct?

```

1 method Multiply2(n:int) returns (r:int)
2   requires 0 <= n;
3   ensures r = 2*n;
4   {
5     r := 0;
6     var i:int := 0;
7     while (i < n)
8     invariant 0 <= i <= n
9     //invariant 0 <= r < 2*n
10    invariant r = 2*i
11    {
12      r := r + 2;
13      i := i + 1;
14    }
15    //assert i == n;
16    //assert r == 2*i;
17  }

```



tutorial

home **video** **permalink**
'>' shortcut: Alt+B

'>' shortcut: Alt+B

Dafny program verifier finished with 2 verified, 0 errors

samples

Hello

Fibonacci
Ackermann

Add

Mul

CountToN
CountToA:

COUNT TO ANDRE TUFIN
Cube

zh

about Dafny – A language and program verifier for functional correctness

Dafny is a programming language with imperative and functional features, as well as specification constructs for describing intended behavior. The Dafny verifier checks that programs live up to their specifications.