Quiz 8
NAME:

cs2231-01 Tuesday
cs2231-02 Thursday

Use the loop invariant (I) to show that the code below correctly computes $7n$. First use induction to show that (I) is indeed a loop invariant, and then draw conclusions for the termination of the while loop.

**Algorithm 1** foo(int n)

```plaintext
p = 0
i = 0
while i ≤ n − 1 do
    // (I) p = 7i
    i ++
    p = p + 7
end while
return p
```