

CSCI 400 – Programming Language Concepts – Spring 2019
HW 08 – Program Correctness (10 points)

This assignment is to be turned in through Blackboard.

1. (5 points) Compute the weakest precondition for the following code:

```
if x < y then
  x = x + 1
else
  x = x * 3
end
{x < 0}
```

2. (5 points) Give a partial proof of correctness for the following code:

```
{n > 0}
c = n
sum = 0
while c != 0 do
  sum = sum + c
  c = c - 1
end
{sum = 1 + 2 + ... + n}
```