Computer Science CSC 238H
St. George Campus

Wednesday July 8 1998
University of Toronto

Quiz #5

First Name: ______________________________

Last Name: ______________________________

Student Number: ______________________

1. [1 mark] Prove that the following recursive programme is correct with respect to the pre- and post-conditions stated below.

power(n)
  if $n = 0$ then return 1
  else return 2·power($n - 1$)
end

precondition: $n \in \mathbb{N}$
postcondition: the returned value is 2^n