University of Toronto, St. George Campus
Department of Computer Science

CSC 165H1 F
Fall 2007

Quiz #6

Name: ____________________ Marker's name: ____________________

Instructions to student: Using pen, write your answers in the space provided and leave the right column blank.
Instructions to marker: Write only in the right column, and clearly indicate the mark you believe is deserved in each category. Write the total in the provided blank.

Consider the following statement about a sequence of natural numbers $a_0, a_1, a_2, \ldots$:

$$[(a_1 \geq 1) \wedge (\forall i \in \mathbb{N}, a_{2i} > 5a_i)] \Rightarrow (\exists i \in \mathbb{N}, a_i > 100)$$

Justify each step of your proof by indicating the rule you're using, or by writing "math" if you're only using general mathematical or arithmetic results.

For marking only:

5 marks:
2 for structure
2 for correctness
1 for justification

Proof Structure:
0 = improper
1 = somewhat right
2 = right, can use to prove statement

Argument Correctness:
0 = not convincing
1 = halfway there (minor flaws)
2 = convincing

Justification:
0 = often wrong
0.5 = sometimes
1 = easy to read

Total: ________