Name (PRINTED): _____

Student ID #: _____

Section # (or TA's: name and time) _____

CMSC 250 Quiz #9 Wed., Mar. 29, 2006

Write all answers legibly in the space provided. The number of points possible for each question is indicated in square brackets – the total number of points on the quiz is 30, and you will have exactly **20 minutes** to complete this quiz. You may not use calculators, textbooks or any other aids during this quiz.

1. [15 pnts.] Prove the following statement is true or give a specific counter example to prove that it is false.

$$\forall n \in Z^{\geq 4},\ 2^n \geq n^2$$

↓ TURN OVER ↓

2. [15 pnts.] Prove the following statement is true or give a specific counter example to prove that it is false:

$$\forall n \in Z^+, \ \sum_{j=0}^{n} [3(2^j)] = 6(2^n) - 3$$