Name (PRINTED): _____

Student ID #: _____

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

CMSC 250 Quiz #1 ANSWERS Wed., Jan. 25, 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 10 minutes to complete this quiz. You may not use calculators, textbooks or any other aids during this quiz.

1. [15 pnts.] Solve for the numeric value of x in each of the following.

   a. $x = log_2 8 + log_3 9$ _____5 _____

   b. $x = 6(\frac{1}{3} + \frac{1}{2})$ _____5 _____

   c. $x = \frac{(2^{-3})}{2^{-4}}$ _____2 _____

   d. $8 = log_2(x^2)$ _____16 _____

   e. $x = log_3 18 - log_3 2$ _____2 _____

↓ TURN OVER ↓

2. [15 pnts.] Reduce each of the following to a polynomial in the least number of terms.

a. $(x^3)(\frac{(x+1)^2}{x^2})$ _____$x^3 + 2x^2 + x$ _____

b. $\frac{1}{x} * \frac{x^2}{2}$ _____$\frac{1}{2}x$ _____

c. $x(\frac{x^z}{x^{z+1}})$ _____1 _____

d. $(x-2)(x+3)(x)$ _____$x^3 + x^2 - 6x$ _____

e. $(2x^2 + 3x + 5)^2$ _____$4x^4 + 12x^3 + 29x^2 + 30x + 25$ _____