Name (PRINTED): _____

ID #: _____

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

CMSC 250 Quiz #1 ANSWERS Wed., Jan. 28, 2004

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.

You must show your work!!

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

   a. $x = log_3 9 - log_5 25$ _____0_____

   b. $x = 8(\frac{1}{4} - \frac{1}{8})$ _____1_____

   c. $x = \frac{(2^{-2})}{2^{-3}}$ _____2_____

   d. $2 = log_x(3^2)$ _____3_____

   e. $\frac{1}{4}x = log_2 16 - log_2 8$ _____4_____

↓ TURN OVER ↓

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

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

b. $(x^3 + 2x)(x - 1)$ _____$x^4 - x^3 + 2x^2 - 2x$_____

c. $(x^n)\frac{(x^{-2n})}{x^{-n}}$ _____1_____

d. $(x^m + 2m)^2$ _____$x^{2m} + 4mx^m + 4m^2$_____

e. $\frac{4x^2}{2}\frac{x+1}{2x}$ _____$x^2 + x$_____