CMSC 250 Quiz #1 ANSWERS Wed., Sept. 1, 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 15 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. $x = log_4 64 - log_3 9$ 1

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

   c. $x = \frac{(3^2)}{3^{-2}}$ 3^4 or 81

   d. $4 = log_5(x^2)$ 5^2 or 25

   e. $x = log_2 12 - log_2 6$ 1

↓ TURN OVER ↓

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

a. $(2x^2 - x)(\frac{x-2}{x})$ $\underline{\quad 2x^2 - 5x + 2 \quad}$

b. $x * x^2 - x^2$ $\underline{\quad x^3 - x^2 \quad}$

c. $2(x^2)^z - (x^{2z} * x^z)$ $\underline{\quad 2x^{2z} - x^{3z} \quad}$

d. $(x^2 - 2x - 3)(\frac{1}{x+1})$ $\underline{\quad x - 3 \quad}$

e. $(x + 2)(x^2 - 1)(x)$ $\underline{\quad x^4 + 2x^3 - x^2 - 2x \quad}$