

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. $(x^3)\left(\frac{(x+1)^2}{x^2}\right)$ $\underline{\hspace{1cm}}x^3 + 2x^2 + x \underline{\hspace{1cm}}$

b. $\frac{1}{x} * \frac{x^2}{2}$ $\underline{\hspace{1cm}}\frac{1}{2}x \underline{\hspace{1cm}}$

c. $x\left(\frac{x^z}{x^z+1}\right)$ $\underline{\hspace{1cm}}1 \underline{\hspace{1cm}}$

d. $(x-2)(x+3)(x)$ $\underline{\hspace{1cm}}x^3 + x^2 - 6x \underline{\hspace{1cm}}$

e. $(2x^2 + 3x + 5)^2$ $\underline{\hspace{1cm}}4x^4 + 12x^3 + 29x^2 + 30x + 25 \underline{\hspace{1cm}}$