## MONTGOMERY COLLEGE Department of Mathematics Rockville Campus

MA 103 KATIRAIE QUIZ #4 Form B SECTIONS (4.1, 4.2, and 5.1) FALL 2007

NAME \_\_\_\_\_

SCORE: \_\_\_\_/ 20
\*\*\* RETAIN ALL GRADED PAPERS FOR YOUR RECORDS \*\*\*

1. A student takes out two loans to help pay for college. One loan is at 9% simple interest, and the other is at 7% simple interest. The total amount borrowed is \$6000, and the interest after 1 year for both loans is \$470. Find the amount of each loan.

2. A boat travels upstream 120 miles in 6 hours. The return trip takes 4 hours. Find the speed of the boat without a current and the speed of the current.

3. A 10-foot wide sidewalk around a rectangular swimming pool has a total area of 2400 square feet. Find the dimensions of the swimming pool if the pool is 20 feet longer than it is wide

4. A vending machine will only accept quarters and dimes. When the coins are collected, the machine has 226 coins worth \$24.10. How many quarters were there? How many dimes? Show your work!

5. Solve the following system of equations using Substitution or Elimination method.

$$\begin{cases} 3x + 2y = -1 \\ 4x - y = -5 \end{cases}$$