

MONTGOMERY COLLEGE
Department of Mathematics
Rockville Campus

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

NAME _____ SCORE: _____ / 20
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1. Solve the following system of equations using Substitution or Elimination method.

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

2. 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!

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 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.

5. 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.