## 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 $\qquad$ SCORE: $\qquad$ - 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.

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\left\{\begin{array}{l}
3 x+2 y=-1 \\
4 x-y=-5
\end{array}\right\}
$$

