

MONTGOMERY COLLEGE
Department of Mathematics
Rockville Campus

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

NAME _____ SCORE: ____/ 20
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1. A student takes out two loans to help pay for college. One loan is at 7.5% simple interest, and the other is at 9.5% simple interest. The total amount borrowed is \$3500, and the interest after 1 year for both loans is \$302.50. Find the amount of each loan.

(Hint: $7.5\% = 0.075$ and $9.5\% = 0.095$ Now Set up a system of equations, and Multiply one of the equations by 1000 to get rid of decimals.)

2. A boat travels downstream 150 miles in 5 hours. The return trip takes 7 hours and 30 minutes. Find the speed of the boat without a current and the speed of the current

3a) Write a polynomial that gives the sum of the areas of a square with sides of length x and a circle with radius x .

b) Find the combined area when $x = 10$ inches.

4. A number minus twice a second number equals 7.
The Sum of the two numbers is 16.
Find the two numbers.

5. The sum of two numbers is 25, and their difference is 11. Find the two numbers.