QUIZ 5 - MATH 102 YOUR NAME:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

- 1. Marlen bought a gallon of milk and a magazine for a total of \$4.65 excluding tax. Including the tax, the bill was \$4.95. If there is a 5% sales tax on milk and an 8% sales tax on magazines, what was the price of each item?
 - (a) Set variables and state their meaning.
 - (b) Write equations reflecting the data. (Hint: one price and one tax equation)
 - (c) Solve the system of equations to answer the question.

2. Use elimination to solve the system

$$\left\{ \begin{array}{rrrr} 2x + 3y - 2z &=& -11 \\ 3x - 2y + 3z &=& 7 \\ x - 4y + 4z &=& 14 \end{array} \right\}$$