

Name: \_\_\_\_\_

**Directions:** Show all work. No credit for answers without work.

1. [**2 parts, 5 points each**] Solve the following systems of linear equations.

$$\begin{array}{rcl} & x & + & 2y & + & z & = & 0 \\ \text{(a)} & 2x & + & 5y & + & 3z & = & -4 \\ & x & + & 3y & + & 4z & = & -10 \end{array}$$

$$\begin{array}{rcl} \text{(b)} & x & + & 3y & + & z & = & 2 \\ & 3x & + & 7y & + & 7z & = & 8 \end{array}$$