Introduction to Linear Algebra

Group Members:

1.

2.

3.

4.

Write your name on the list. Introduce yourself to the group. Each person give one highlight from winter break.

**Person 3:** You are the reader for the group. You read the worksheet sections out loud to the group.

**Person 2 is the recorder** – she writes down the group’s answers.

**Person 1 is the facilitator** – she helps keep the group on track to follow instructions and to make sure everyone gets their turn.

**Person 4** (or 1 if no 4) **is the reporter** – you report the group’s answers.

**Group List**: What are some issues facing the nation and the world that you are concerned about? Go around the group (person 1, 2, 3, 4, 1, 2, 3, 4) and have each person say one issue they are concerned about. **Recorder** writes down the issues. **Facilitator** –keep the group on track.

**Application of Linear Algebra**.

The following problem will give you practice translating a “real world” situation in mathematics, using mathematics to solve the math problem and then translating the mathematical solution back to the real world setting. This process is called **Mathematical Modeling.**

The dinning hall is making salad by mixing two types of lettuce: green leaf lettuce which costs $1.50 per pound and the more tasty red leaf lettuce that costs $3.00 per pound. They would like to have as much of the red leaf as possible but their budget for the salad is only $2.00 per pound. They will make 50 pounds of salad. How many pounds of each type of salad should they use in the mix?

**First work on this individually for a few minutes. Do you understand what the question is saying? You may ask your group for help if you are stuck.**

**Then discuss as a group.**

1. Define variables to represent information given in the problem. **Hint**: What does the problem ask you to find?
2. Using the variables you have defined, translate the information in the problem into equations.
3. Use your mathematical techniques to solve the equations.
4. Answer the given question using a complete sentence. This will require translating back from the mathematical answer into the real world answer.