## Math 2B: Applied Linear Algebra

1. State the applied math modeling process. Explain where matrices and vectors arise in this applied mathematical modeling process.
2. State the Matrix-Vector Multiplication problem (MVMP). Specifically identify the given information and what is unknown. Make sure to state the dimensions of all quantities in this problem statement
3. State the Nonsingular Linear-Systems problem (NLSP). Specifically identify the given information and what is unknown. Make sure to state the dimensions of all quantities in this problem statement
4. How are the MVMP and the NSLP problems related? How are these problems similar? How do these problems different?
5. State the General Linear-Systems problem (GLSP). Specifically identify the given information and what is unknown. Make sure to state the dimensions of all quantities in this problem statement
6. State the Full-Rank Least-Squares problem (FRLSP). Specifically identify the given information and what is unknown. Make sure to state the dimensions of all quantities in this problem statement
7. How are the GLSP and the FRLSP problems related? How are these problems similar? How do these problems different?
8. State the Standard Eigenvalue problem (SEP). Specifically identify the given information and what is unknown. Make sure to state the dimensions of all quantities in this problem statement
