Homework 1

§1.1: 18, 22, 28  §1.2: 16, 20, 24  §1.3: 6, 10, 26  §1.4: 28, 36, 38
§1.5: 12, 20, 30  §1.7: 16, 30, 32, 34  §1.8: 4, 20, 28  §1.9: 4, 8, 16, 36

Additional Problems

\[ A = \begin{bmatrix} 8 & 11 & -6 & -7 & 13 \\ -7 & -8 & 5 & 6 & -9 \\ 11 & 7 & -7 & -9 & -6 \\ -3 & 4 & 1 & 8 & 7 \end{bmatrix} \]

1. Find the parametric form for the solution set of the homogeneous system whose coefficient matrix is the above matrix \( A \).

2. Determine whether the column vectors of \( A \) are linearly dependent; and determine whether the row vectors of \( A \) are linearly independent.

3. Find a linear system whose solution set is the span of the column vectors of the above matrix \( A \).

4. Find a linear system whose solution set is the span of the row vectors of the above matrix \( A \).