Problem 1: Do the following problems from the book. Show your work.

Review problems for Chapter 1 (pg 36): 14, 15
Section 2.2: 2c, 2d, 2e, 2f
Section 2.3: 6

Problem 2: Solve the following simultaneous equation systems using the method of substitution.

a.

\[
2x - 3y = 2 \\
7x - 9y = 10
\]

b.

\[
x + 2y = -1 \\
5x - y = 6
\]

c.

\[
x + y - z = 0 \\
3x - y + z = 8 \\
x + 2y + 3z = 3
\]

Problem 3: Solve the following simultaneous equation systems using the method of elimination.

a.

\[
-x + 4y = 9 \\
2x + 3y = 2
\]

b.

\[
4x - y = 8 \\
7x + 2y = 29
\]
c.

\[
\begin{align*}
2x + 3y + 4z &= 13 \\
-x - 2y + z &= 3 \\
3x + y + 4z &= 17
\end{align*}
\]

**Problem 4:** Solve the following system of equation for \( x \) and \( y \).

\[
\begin{align*}
360x^{-1/2}y^{1/5} - 80 &= 0 \\
144x^{1/2}y^{-1/5} - 81 &= 0
\end{align*}
\]