

SLE HW Exercises 1 (Not for Turn In)

Write the following as an SLE in the form $A\bar{x} = \bar{b}$ and then solve the SLE. Indicate how many solutions there are. In problems 1-3 sketch a graph that verifies your results.

1. $2x - 4y = 8$
 $3x + 2y = 4$

2. $2x - 4y = 8$
 $-x + 2y = -4$

3. $2x - 4y = 8$
 $6x - 12y = 4$

4. $2x + y + 3z = -1$
 $x - y + 2z = -6$
 $3x + y - z = 8$

5. $x_1 + 2x_2 + 3x_3 = 1$
 $4x_1 + 5x_2 + 6x_3 = 2$
 $7x_1 + 8x_2 + 9x_3 = -1$

6. $x_1 + 4x_2 + 7x_3 = a$
 $2x_1 + 5x_2 + 8x_3 = b$
 $3x_1 + 6x_2 + 9x_3 = c$