Week 1
MATH 4A
TA: Jerry Luo
jerryluo8@math.ucla.edu
Website: math.ucla.edu/∼jerryluo8
Office Hours: Thursday 1-2, MS 2344; SMC hours: Tuesday 1-2, MS 3974

1.1.2 Give a geometric description of the following systems of equations.

(a)

$$-6x + 15y = -6$$
$$8x - 20y = 8$$

(b)

$$-6x + 15y = -6$$
$$8x - 20y = 11$$

(c)

$$-5x + 3y = -5$$
$$8x - 8y = -6$$

1.1.3 Write the augmented matrix of the following system:

$$\begin{aligned} -49y - z &= 2 \\ -42x + 25z &= -29 \\ -6x - 9y + 88z &= 33 \end{aligned}$$

1.1.5 Solve the following system with substitution or elimination:

$$\begin{aligned} 2x - 6y &= -17 \\ -3x + 9y &= 24 \end{aligned}$$

How many solutions are there?

1.1.7 Consider the following system:

$$\begin{aligned} 12x + 12y &= 6 \\ 24x + 24y &= k \end{aligned}$$

What must k be for the system to be consistent?