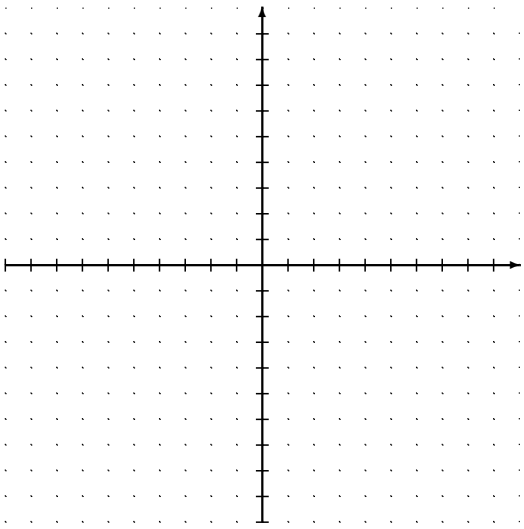
Linear Systems WS **Name:**

1. (a) Solve graphically

$$x + y = 7$$
$$x - y = 1$$



(b) Solve by substitution

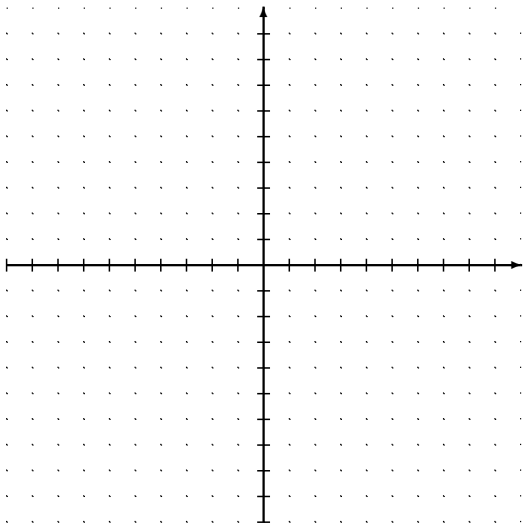
$$x + y = 7$$
$$x - y = 1$$

(c) Solve by Elimination

$$x + y = 7$$
$$x - y = 1$$

2. (a) Solve graphically

$$2x - y = -3$$
$$3x + 5y = 2$$



(b) Solve by substitution

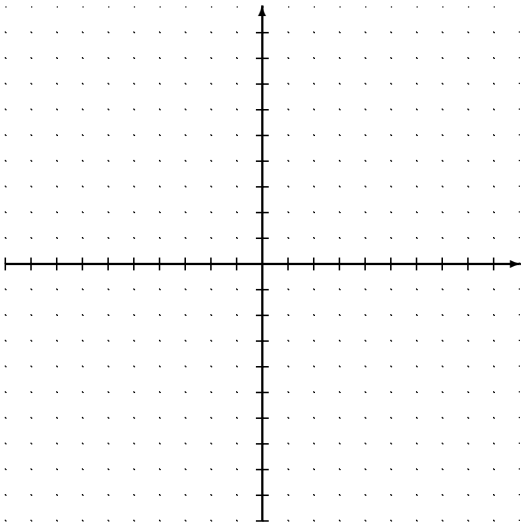
$$2x - y = -3$$
$$3x + 5y = 2$$

(c) Solve by Elimination

$$2x - y = -3$$
$$3x + 5y = 2$$

3. (a) Solve graphically

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



(b) Solve by substitution

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

(c) Solve by Elimination

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

These might have
no solution (inconsistent system),
one solution (consistant system),
or infinite solutions (dependent system)
inconsistent and dependent systems have the same slope

4.

$$x + y = 7$$
$$2x + 2y = 14$$

5.

$$3x + 2y = 1$$
$$6x - 4y = 3$$

6.

$$x + 2y = 3$$
$$2x - 3y = -1$$

7.

$$2x + 2y = 4$$
$$x - 3y = -2$$

8.

$$3x + 3y = 0$$
$$-2x - 4y = -2$$

9.

$$2x + y = 4$$
$$x - y = -1$$

10.

$$4x + 2y = 6$$
$$2x + y = 3$$