

Name: _____

Solving Linear Systems Review Sheet (Chapter 7)

Section 1: Testing and determining solutions.

1) Is $(4, -1)$ a solution to the system? _____

$$x + 2y = 2$$

$$x - 2y = 6$$

2) Is $(8, 5)$ a solution to the system? _____

$$5x - 4y = 20$$

$$3y = 2x + 1$$

3) Is $(5, -2)$ a solution to the system? _____

$$x < 5$$

$$x + 2y \geq 1$$

Determine whether the linear system has one solution, no solution or infinitely many solutions.

4) $y - 2x = 1$
 $y - 1 = 2x$ _____

5) $12x - 16y = 8$
 $3x - 4y = 2$ _____

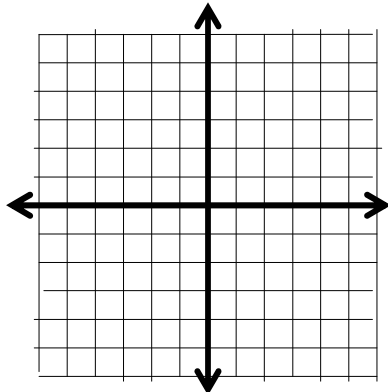
6) $y = x + 2$
 $x + y = 6$ _____

Section 2: Solving Systems. You must solve the system by the indicated method.

7) Solve the system by graphing. You may not extend the graph. _____

$$2x - y = 3$$

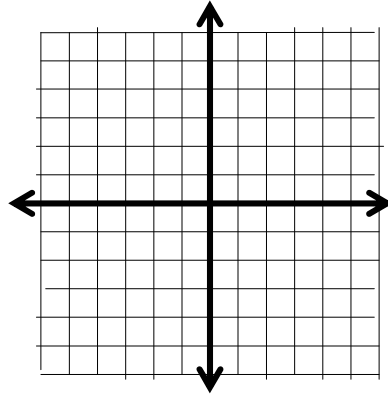
$$3x + y = 2$$



8) Solve the system of inequalities by graphing. You may not extend the graph. _____

$$y \leq 5x + 1$$

$$y > x - 2$$



For problems 9 and 10, solve the system using the substitution method!

9) $y = 2x + 6$ _____
 $x = y - 3$ _____

10) $y = 3x + 5$ _____
 $x + y = -1$ _____

For problems 11-14, solve the system using elimination!

11) $x + 2y = 2$ _____
 $-x + 3y = 13$ _____

12) $10y - 3x = -41$ _____
 $3x - 5y = 16$ _____

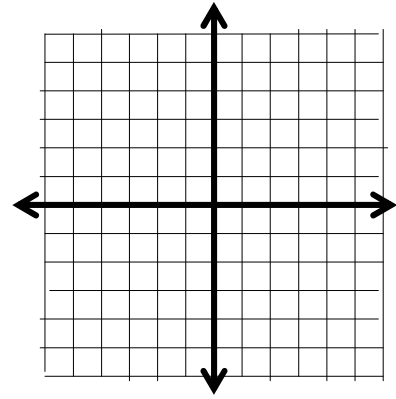
13) $x + y = -3$ _____
 $5x + 7y = -9$ _____

14) $4x - 3y = -2$ _____
 $6x + 4y = 31$ _____

15) Solve by any method of your choice. _____

$$x - y = 4$$

$$y = -2 - x$$



Section 3: Setting Up Systems

- Identify each variable. Be clear and specific
- Write the 2 equations to be used to solve the system.
- **DO NOT** solve the system.

16) In one week, a music store sold 9 guitars for a total of \$3611. Electric guitars sold for \$479 each and acoustic guitars sold for \$339 each. How many of each type of guitar were sold?

$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

$$\text{eq'n 1: } \underline{\hspace{2cm}}$$

$$\text{eq'n 2: } \underline{\hspace{2cm}}$$

17) You worked 14 hours last week and earned a total of \$96 before taxes. Your job as a lifeguard pays \$8 per hour, and your job as a cashier pays \$6 per hour. How many hours did you work at each job?

$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

$$\text{eq'n 1: } \underline{\hspace{2cm}}$$

$$\text{eq'n 2: } \underline{\hspace{2cm}}$$

Section 4: Multiple Choice.

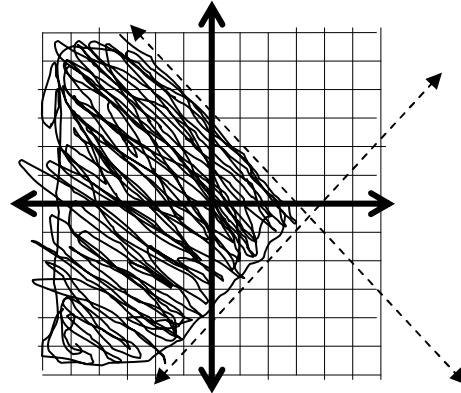
18) Which system of inequalities is represented by the graph? _____

A) $x + y > 3$
 $-x + y < -4$

B) $-x + y \geq -4$
 $x + y \leq 3$

C) $-2x + y > -4$
 $2x + y < 3$

D) $-x + y > -4$
 $x + y < 3$



19) How many solutions does the linear system $4x - 3y = 8$ and $8x - 6y = 16$ have? _____

A) 0 B) 1

C) 2 D) 3

E) infinitely many

20) Which ordered pair is a solution of the system $5x + 3y = 22$ and $4x - 3y = -4$? _____

A) (5, -1) B) (-1, 0)

C) (2, 4) D) (8, -6)

21) Which ordered pair is a solution of the linear system $-4x - y = 2$ and $7x + 2y = -5$? _____

A) (2, -6) B) (-1, 6)

C) (1, -6) D) (-3, 8)