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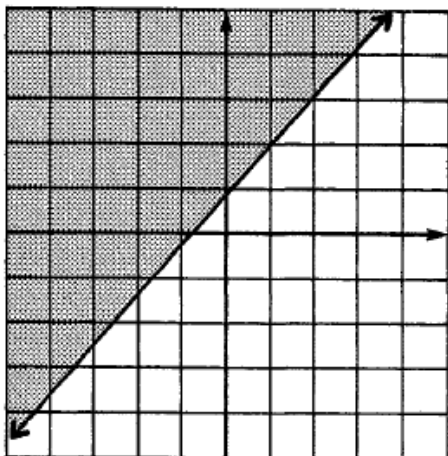
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## Review for Linear Systems and Linear Inequalities TEST

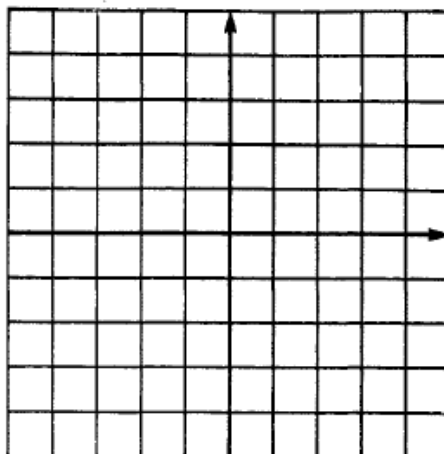
### Linear Inequalities

Graph.

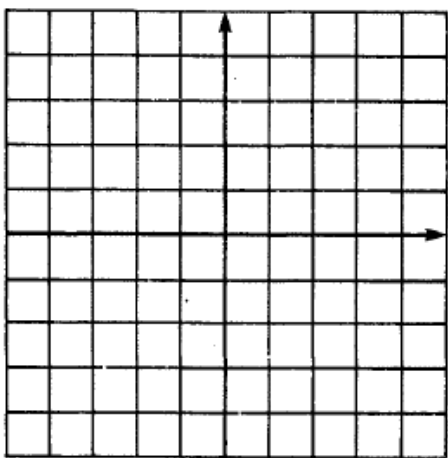
1.  $5x - 4y \leq -3$



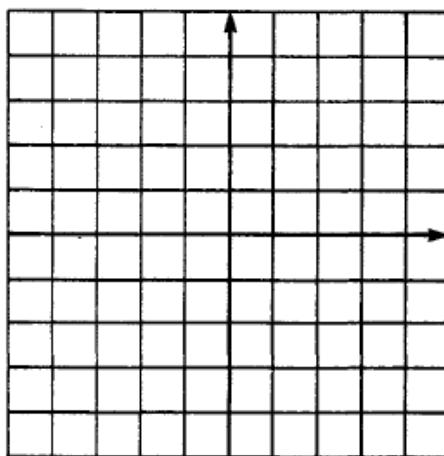
2.  $8x + 7y \geq -11$



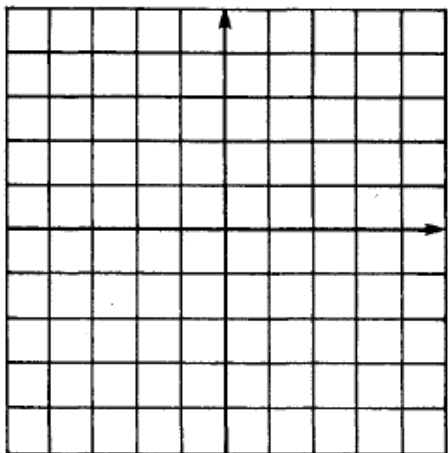
3.  $3x + 4y > 11$



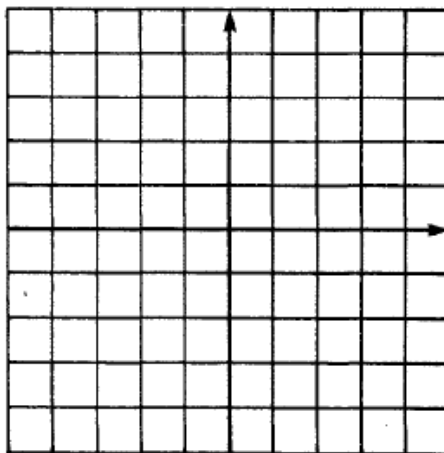
4.  $8x - 9y < 5$



5.  $x + 4y < 13$



6.  $y < -x$



## Linear Systems of Equations

What is the best (most appropriate) method for solving each of the following systems of linear equations? **Explain why.**

1. 
$$\begin{cases} 2x - 6y = -7 \\ -x + 2y = -1 \end{cases}$$

Best Method: \_\_\_\_\_

2. 
$$\begin{cases} -x + 4y = 5 \\ 3x - 2y = -6 \end{cases}$$

Best Method: \_\_\_\_\_

3. 
$$\begin{cases} 8x - 6y = -5 \\ 2y = 7 \end{cases}$$

Best Method: \_\_\_\_\_

4. 
$$\begin{cases} y = 2x + 5 \\ y = -5x + 2 \end{cases}$$

Best Method: \_\_\_\_\_

5. 
$$\begin{cases} 7x - 5y = 2 \\ x = 4y + 3 \end{cases}$$

Best Method: \_\_\_\_\_

## Linear Systems – Tables

1. What is the solution to the system represented by the tables?

Equation 1

$x$	$y$
-3	6
-1	2
0	0
2	-4
5	-10

Equation 2

$x$	$y$
3	6
5	8
0	3
-1	2
-13	-10

2. What is the solution to the system represented by the tables?

Equation 1

$x$	$y$
0	0
5	4.5
-2	-3
2	3
7	10.5

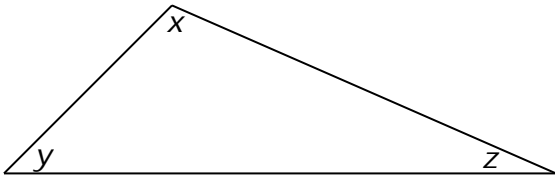
Equation 2

$x$	$y$
2	3
3	4.5
-10	-15
-3	-4.5
4	6

## Linear Systems – Word Problems

- Identify the variables
- Write the system
- Solve using the most appropriate method
- Write the solution to the system
- Write the answer to the system (include labels.)

- The cost of 5 bedspreads and 8 pillows is \$431.76. Three bedspreads and 10 pillows cost \$344.75. Find the cost of each bedspread and each pillow.
- Ann is selling candy. She sold 5 more boxes of gummy bears than M & M's. She sold 21 boxes of candy in all. How many boxes of M & M's did Ann sell?
- If angle  $x$  has a measure of 60 degrees and the measure of angle  $y$  is 15 more than twice the measure of angle  $z$ , find the measures of angles  $y$  and  $z$ .



- Carlos went to buy some CD's and video games. Three CD's and two video games cost \$66. Five CD's and three video games cost \$106. Find the cost of one CD and one video game.
- The perimeter of a rectangle is 26 meters. The length of the rectangle is 5 less than twice the width. Find the length and the width of the rectangle.
- A hotel offers two weekend packages. Plan A which costs \$315, gives one person 3 nights lodging and 2 meals. Plan B gives 2 nights lodging and 1 meal and costs \$205. At these rates, what is the charge for a room for one night?
- Carrie has 26 coins, all nickels and dimes, amounting to \$2.20. How many nickels and dimes does Carrie have?
- Angle A and angle B are complimentary angles. Angle A is three more than twice the measure of angle B. Find the measure of angle A and angle B.
- A boat traveled 210 miles downstream and back. The trip downstream took 10 hours and the return trip took 70 hours. What is the speed of the boat in still water? What is the speed of the current?