

LESSON 7.1 Practice B
 For use with pages 426-434

7.1+7.6 REVIEW

Tell whether the ordered pair is a solution of the linear system.

1. $(4, 1);$

$x + 2y = 6$

$3x + y = 11$

$$L1: 4 + 2(1) = 6$$

$$6 = 6 \checkmark$$

$$L2: 3(4) + 1 = 11$$

$$13 \neq 11$$

 $(4, 1)$ NOT A SOLUTION

2. $(-2, 1);$

$5x - 2y = -12$

$x + 3y = 1$

$$L1: 5(-2) - 2(1) = -12$$

$$-12 = -12 \checkmark$$

$$L2: -2 + 3(1) = 1$$

$$1 = 1 \checkmark$$

 $(-2, 1)$ SOLUTION

3. $(4, -3);$

$-3x + 2y = -18$

$6x - y = 27$

$$L1: -3(4) + 2(-3) = -18$$

$$-18 = -18 \checkmark$$

$$L2: 6(4) - (-3) = 27$$

$$27 = 27 \checkmark$$

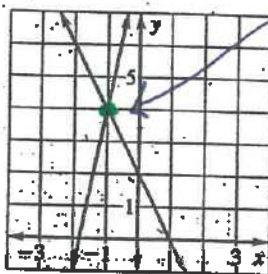
 $(4, -3)$ SOLUTION

Use the graph to solve the linear system.

Check your solution.

8. $5x - y = -9 \checkmark$

$y + 2x = 2 \checkmark$


SOLUTION $(-1, 4)$
Check

$$5(-1) - (4) = -9$$

$$-9 = -9 \checkmark$$

$$4 + 2(-1) = 2$$

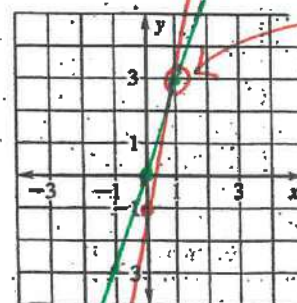
$$2 = 2 \checkmark$$

Solve the linear system by graphing.

Check your solution.

13. $y = 3x + 0$

$y = 4x - 1$



$$L1: 3 = 3(1)$$

$$3 = 3 \checkmark$$

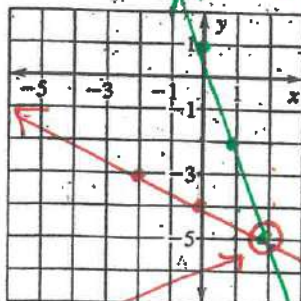
$$L2: 3 = 4(1) - 1$$

$$3 = 3 \checkmark$$

 $(1, 3)$

16. $-3x - y = -1$

$2x + 4y = -16$


 $(2, -5)$

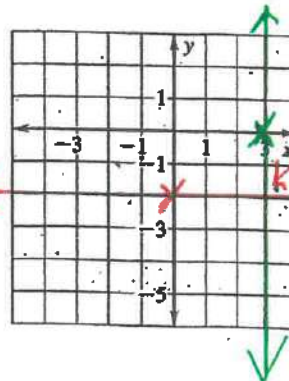
$$L1: -3(2) - (-5) = -1$$

$$-1 = -1 \checkmark$$

$$L2: 2(2) + 4(-5) = -16$$

$$-16 = -16 \checkmark$$

40. $x = 3$
 $y = -2$


 $(3, -2)$

LESSON
6.7**Practice B**

For use with pages 404-412

Tell whether the ordered pair is a solution of the inequality.

1. $x + y > -9$; $(0, 0)$

$$0 + 0 > -9$$
$$0 > -9 \text{ F}$$

 $(0, 0)$ IS A
SOLUTION

2. $x - y \geq 8$; $(14, 9)$

$$14 - 9 \geq 8$$
$$5 \geq 8 \text{ F}$$

 $(14, 9)$ NOT A
SOLUTION

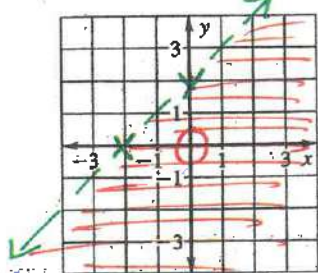
3. $2x - y > 4$; $(-6, -15)$

$$2(-6) - (-15) > 4$$
$$-12 + 15 > 4$$
$$3 > 4 \text{ F}$$

 $(-6, -15)$ NOT A
SOLUTION

Graph the inequality.

11. $x - y > -2$



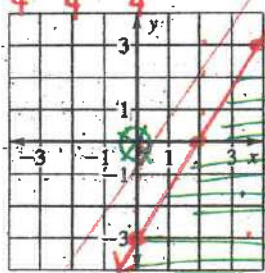
$$x - y > -2$$
$$-x -x$$

$$y > -x - 2$$
$$\frac{-y}{-1} > \frac{-x-2}{-1}$$

$$y < x + 2$$

$$T(0, 0) \quad 0 - 0 > -2$$
$$0 > -2 \text{ (T)}$$

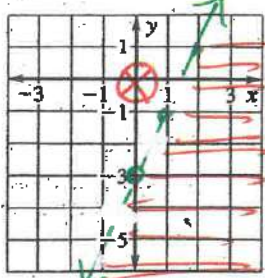
13. $4y \leq 6x - 12$



$$y \leq \frac{3}{2}x - 3$$

$$T(0, 0) \quad 0 < -12 \text{ F}$$

16. $2(y + 3) < 4x$



$$2y + 6 < 4x$$
$$-6 \quad -6$$

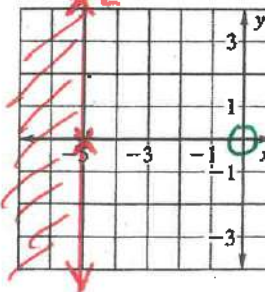
$$2y < 4x - 6$$
$$\frac{2y}{2} < \frac{4x-6}{2}$$

$$y < 2x - 3$$

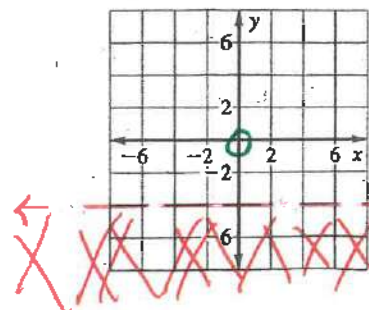
$$m = 2, \\ b = -3$$

$$T(0, 0) \quad 6 < 0 \text{ F}$$

20. $x \leq -5$



21. $y < -4$

DOTT.
LINE
<, >

Tell whether the ordered pair is a solution of the system of inequalities.

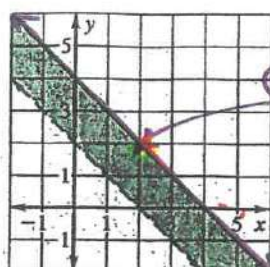
1. (3, 0)

2. (2, 2)

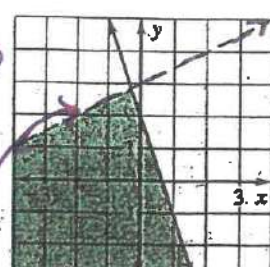
3. (-2, 2)



Solution



Solution
Solid Line



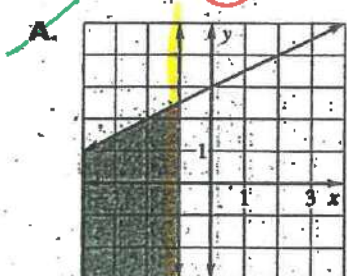
Not Solution
Dashed Line

Match the system of inequalities with its graph.

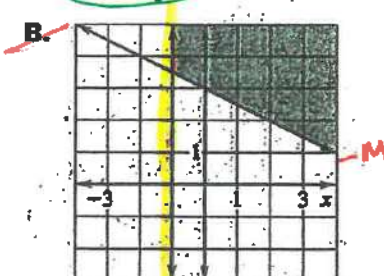
4. $\frac{1}{2}x + y \geq 3$ $y \geq -\frac{1}{2}x + 3$
 $x > -1$ (B)

5. $y - \frac{1}{2}x \leq 3$ $y \leq \frac{1}{2}x + 3$
 $x < -1$ (A)

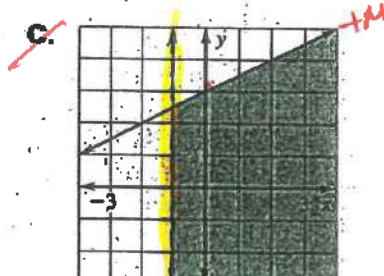
6. $y \leq \frac{1}{2}x + 3$
 $x > -1$ (C)



$x < -1$



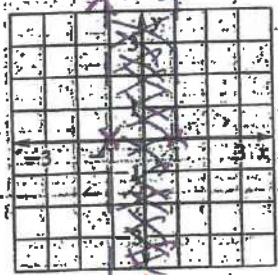
$x > -1$



$x > -1$

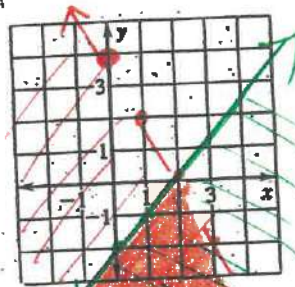
Graph the system of inequalities.

7. $x > -1$
 $x < 1$

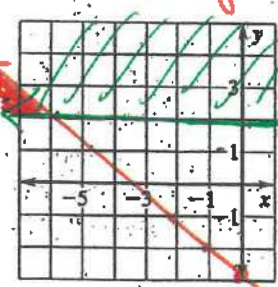


S.R.

10. $x \geq y + 2$
 $2x + y < 4$



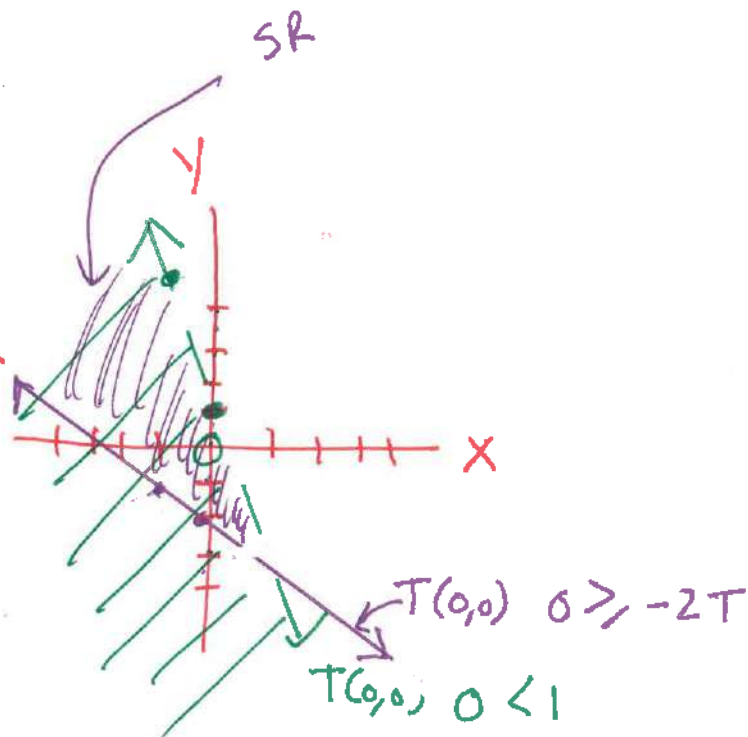
11. $y \geq 2$
 $x + y \leq -3$ $y \leq -x - 3$



① $y + \frac{1}{2} \leq x - 2$
 $y \leq x - 2$
T(0,0) 0 > -2 F

② $y < -2x + 4$
T(0,0) 0 < 4 T

① $y < -4x + 1$ $m = -\frac{4}{1}$ $b = 1$
 $y \geq -x - 2$ $m = -1$ $b = -2$



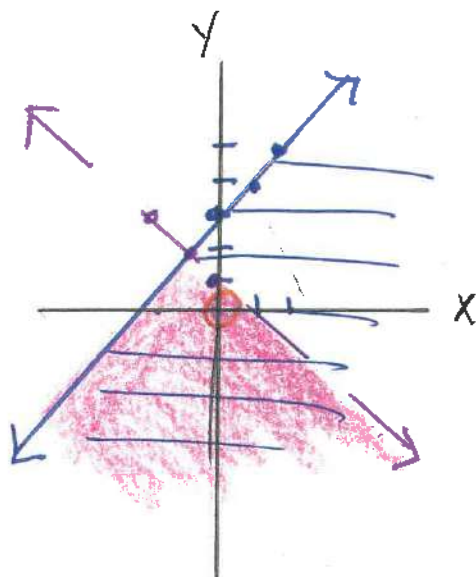
② I1: $y \leq x + 3$
 $m = \frac{1}{1}$ $b = 3$

$T(0,0) 0 \leq 3$

I2: $y > x - 1$
 $\neg \neg \neg$

$y < -x + 1$
 $m = -\frac{1}{1}$ $b = 1$

$T(0,0) 0 > -1 \text{ } \oplus \text{ } \underline{\text{or}} \text{ } 0 < 1 \text{ } \oplus$



I1: $m = \frac{1}{1}$
I2: $m = -\frac{1}{1}$] slopes are Negative reciprocals $\rightarrow \perp$ lines
opposite signs