

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: $-3(4) + 2(-3) = -18$
 $-18 = -18 \checkmark$

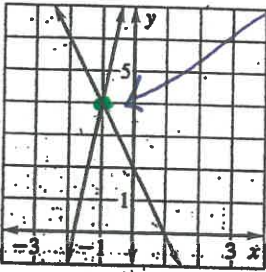
L2: $6(4) - (-3) = 27$
 $27 = 27 \checkmark$

(4, -3) SOLUTION

Use the graph to solve the linear system.

Check your solution.

8. $5x - y = -9 \checkmark$
 $y + 2x = 2 \checkmark$



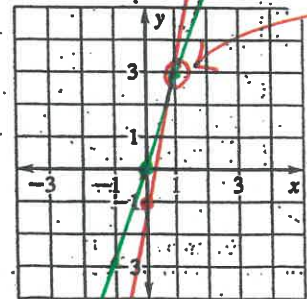
SOLUTION (-1, 4)

Check
 $5(-1) - (4) = -9$
 $-9 = -9 \checkmark$
 $4 + 2(-1) = 2$
 $2 = 2 \checkmark$

Solve the linear system by graphing.

Check your solution.

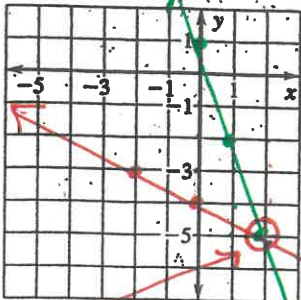
13. $y = 3x + 0$
 $y = 4x - 1$



(1, 3)

L1: $3 = 3(1)$
 $3 = 3 \checkmark$
L2: $3 = 4(1) - 1$
 $3 = 3 \checkmark$

15. $-3x - y = -1$
 $2x + 4y = -16$



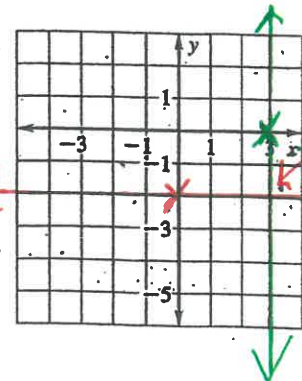
(2, -5)

L1: $-3(2) - (-5) = -1$
 $-1 = -1 \checkmark$
L2: $2(2) + 4(-5) = -16$
 $-16 = -16 \checkmark$

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

$y = -\frac{1}{2}x - 4$

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)

$0 + 0 > -9$
 $0 > -9$ F

(0, 0) IS A SOLUTION

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

$14 - 9 \geq 8$
 $5 \geq 8$ F

(14, 9) NOT A SOLUTION

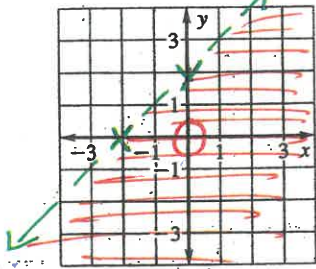
3. $2x - y > 4$; (-6, -15)

$2(-6) - (-15) > 4$
 $-12 + 15 > 4$
 $3 > 4$ F

(-6, -15) NOT A SOLUTION

Graph the inequality.

11. $x - y > -2$



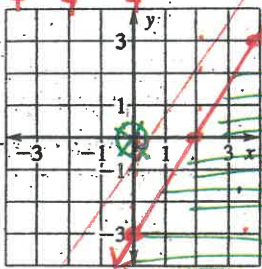
$x - y > -2$
 $-x - y > -2$

$+y > -x - 2$
 $-1 -1$

$y < x + 2$

T(0, 0) $0 - 0 > -2$
 $0 > -2$ (T)

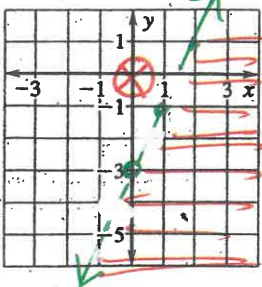
13. $4y \leq 6x - 12$



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

T(0, 0) $0 < -12$ F

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



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

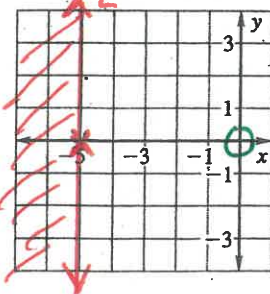
$\frac{2y}{2} < \frac{4x - 6}{2}$
 $\frac{2}{2}$

$y < 2x - 3$

$m = 2$
 $B = -3$

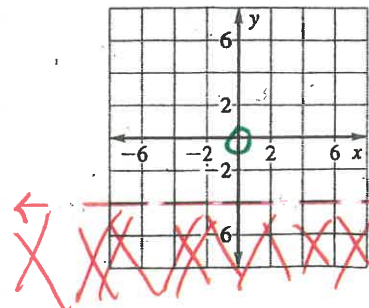
T(0, 0) $6 < 0$ F

20. $x \leq -5$



SOLID LINE \leq, \geq

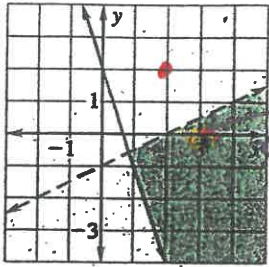
21. $y < -4$



DOT LINE $<, >$

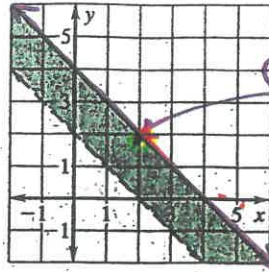
Tell whether the ordered pair is a solution of the system of inequalities.

1. (3, 0)



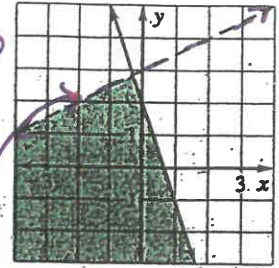
Solution

2. (2, 2)



Solution
Solid Line

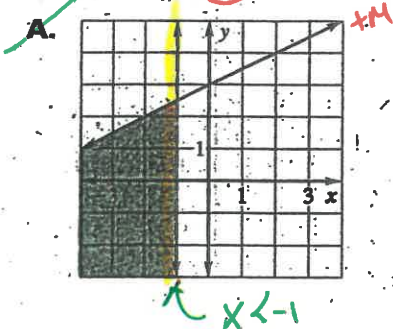
3. (-2, 2)



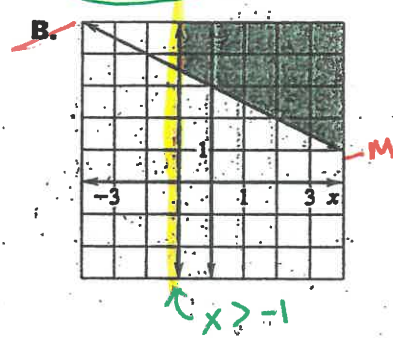
Not Solution
Dashed Line

Match the system of inequalities with its graph.

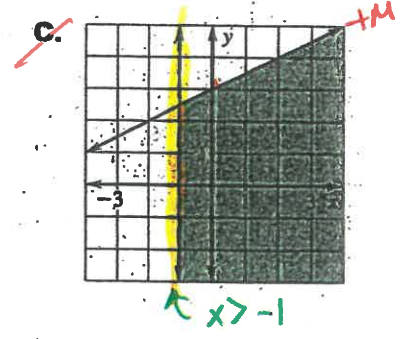
4. $\frac{1}{2}x + y \geq 3$ $y \geq -\frac{1}{2}x + 3$
 $x > -1$ (B)



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

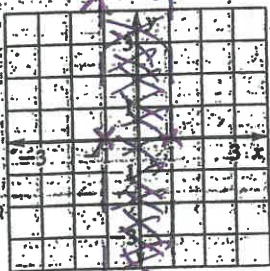


6. $y \leq \frac{1}{2}x + 3$
 $x > -1$ (C)



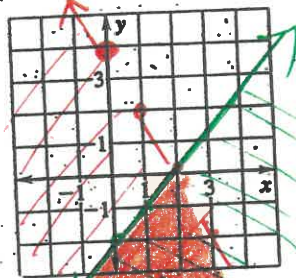
Graph the system of inequalities.

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



S.R

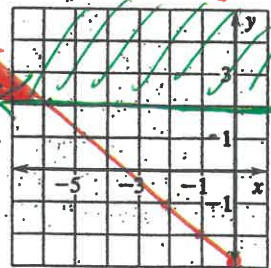
10. (1) $x \geq y + 2$
(2) $2x + y < 4$



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

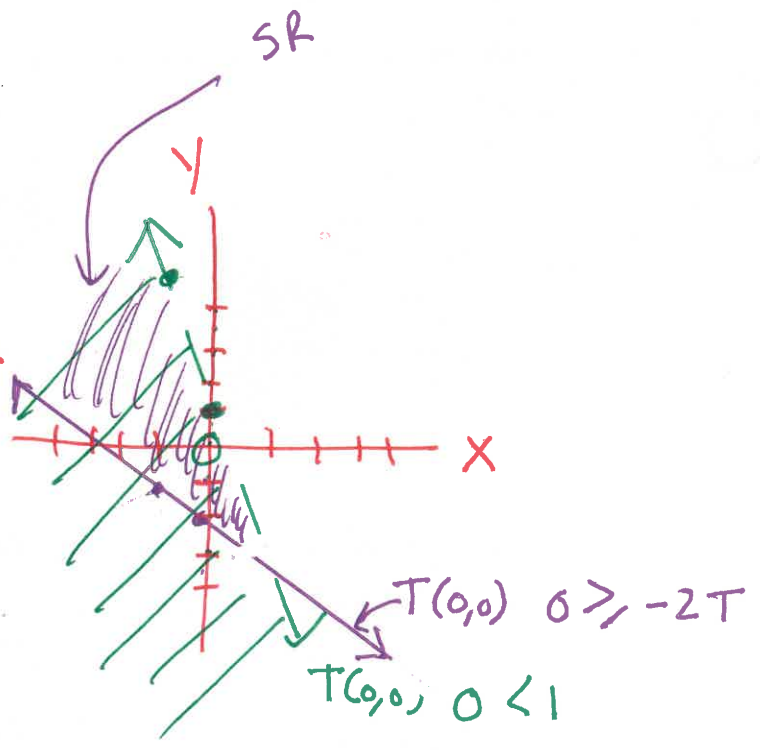
(2) $y < -2x + 4$
T(0,0) 0 < 4 T

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



①

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

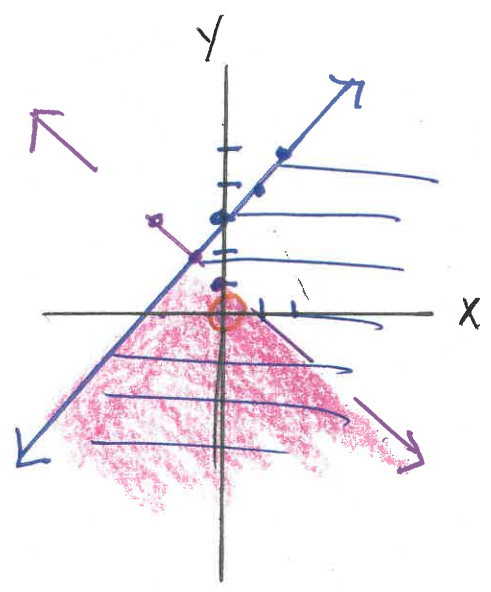


② I1: $y \leq x + 3$
 $m = \frac{1}{1}$ $b = 3$

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

I2: $y > x - 1$
 $y < -x + 1$ (circled)
 $m = -\frac{1}{1}$ $b = 1$

$T(0,0) 0 > -1$ ⊕ or $0 < 1$ ⊕



I1: $m = \frac{1}{1}$
 I2: $m = -\frac{1}{1}$

Slopes are Negative reciprocals → ⊥ lines
 opposite signs