

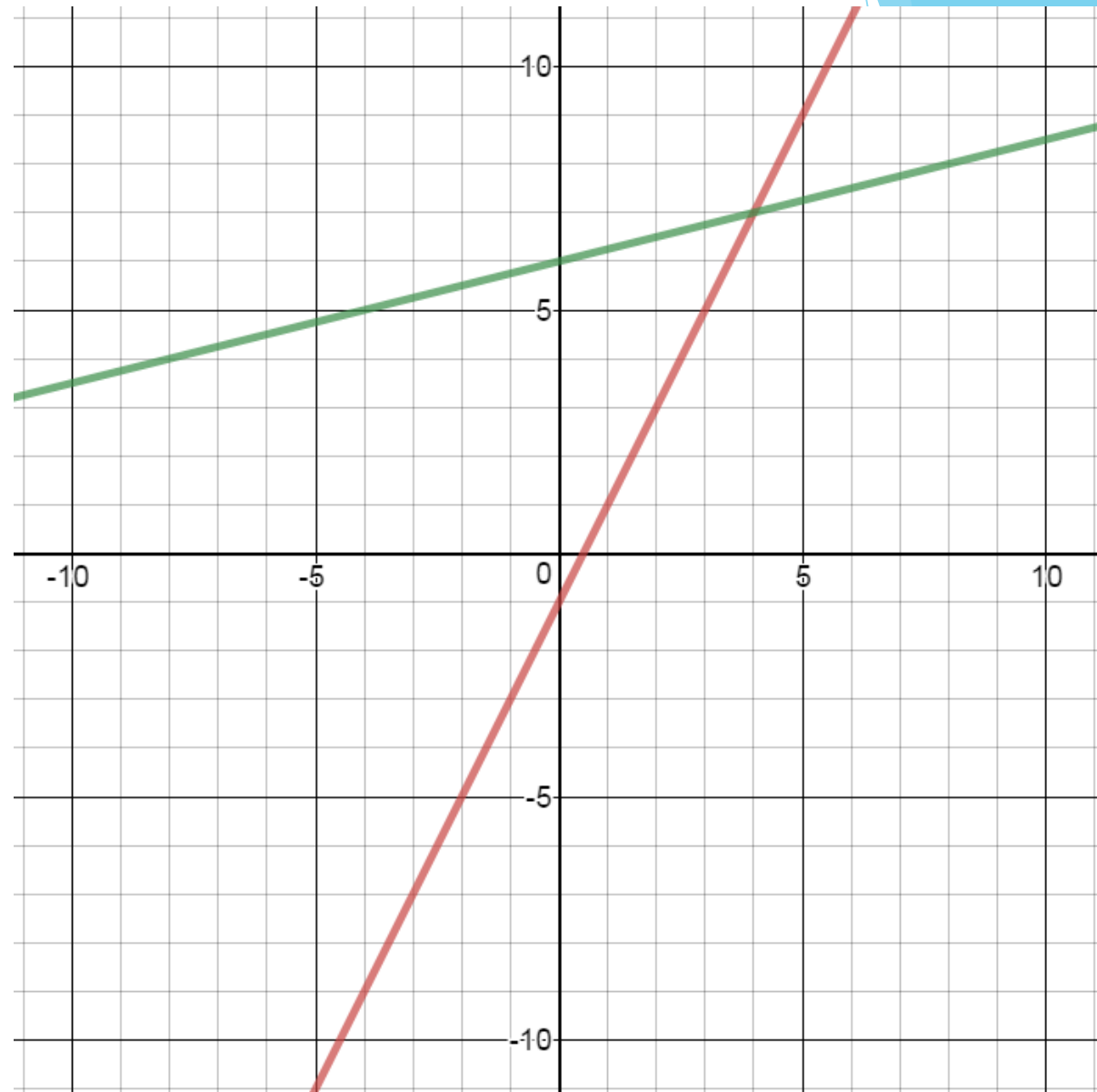
3.2 Solving by Graphing

SWBAT solve a system of equations by graphing.

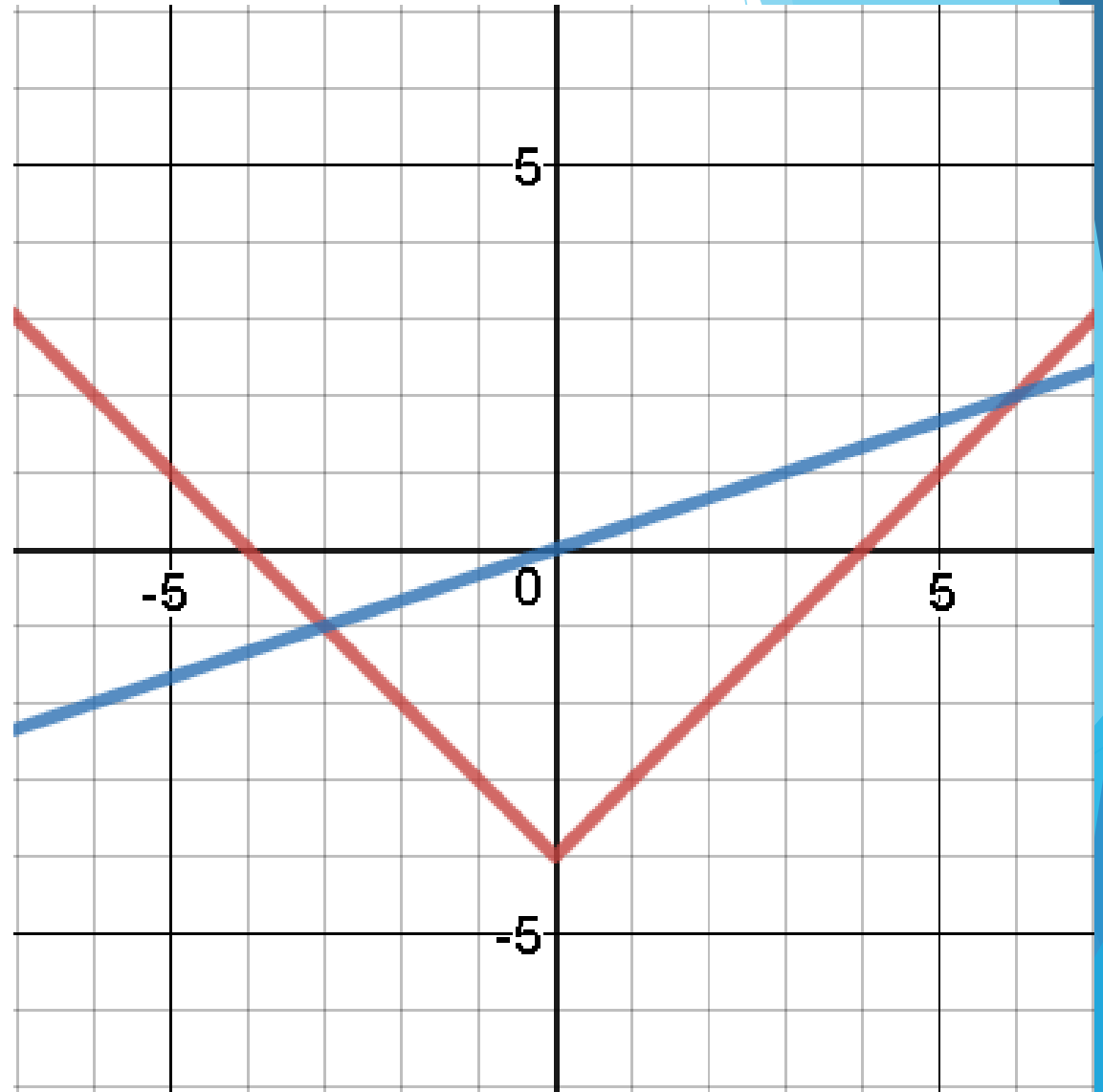
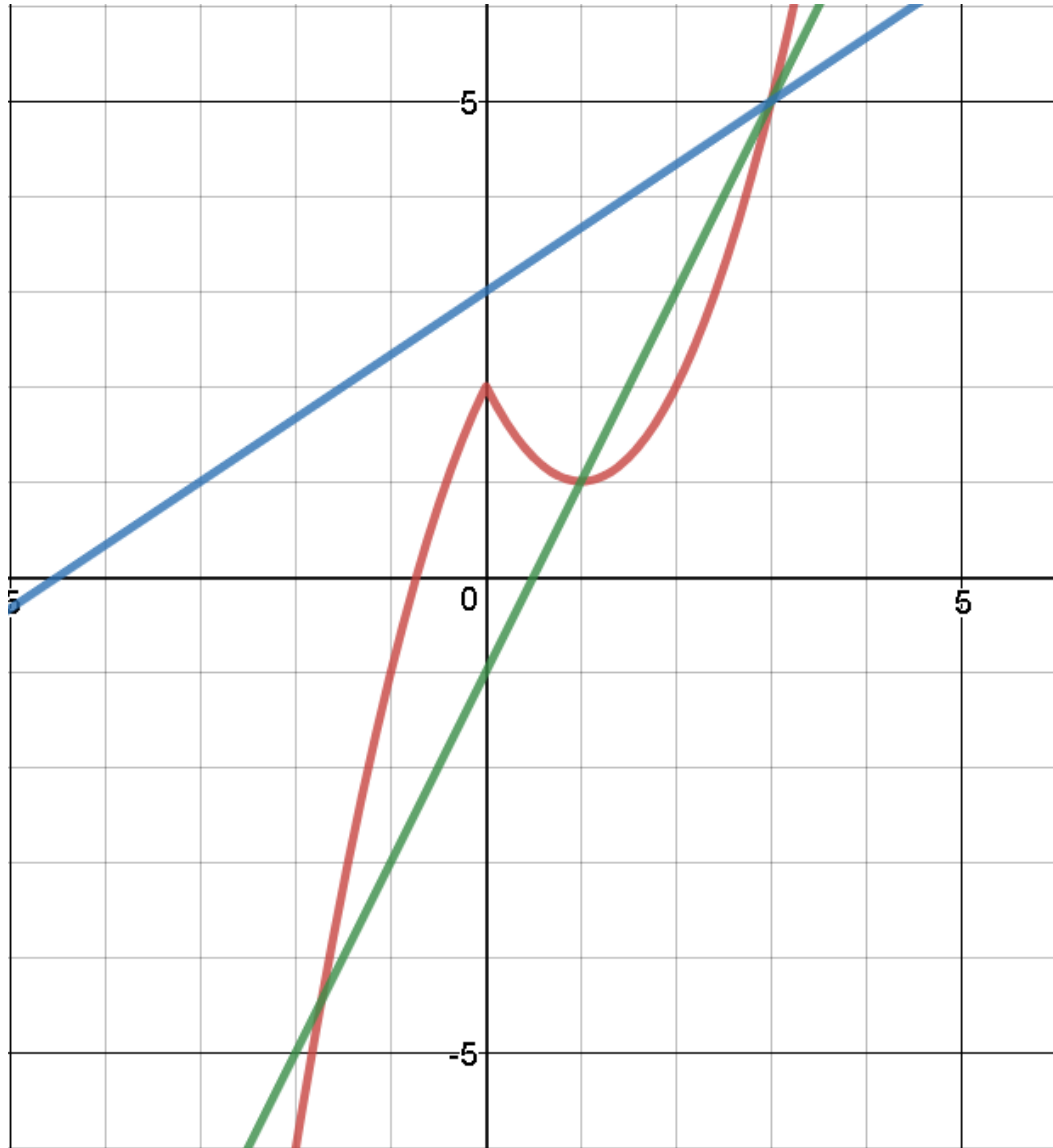
Assignments

HW19

- ▶ Looking at the graph, name some solutions of the equation $y = 2x - 1$
- ▶ Name some solutions of the equation $y = \frac{1}{4}x + 6$.
- ▶ Are there any solutions that are the same?
- ▶ Solutions of systems can be found by looking at where the graphs *intersect*



Find the solutions



Solve the system by graphing.

$$y = 3x - 2$$

$$y = -\frac{1}{3}x + 8$$

$$y = -x + 1$$

1. $y = \frac{1}{2}x + 4$

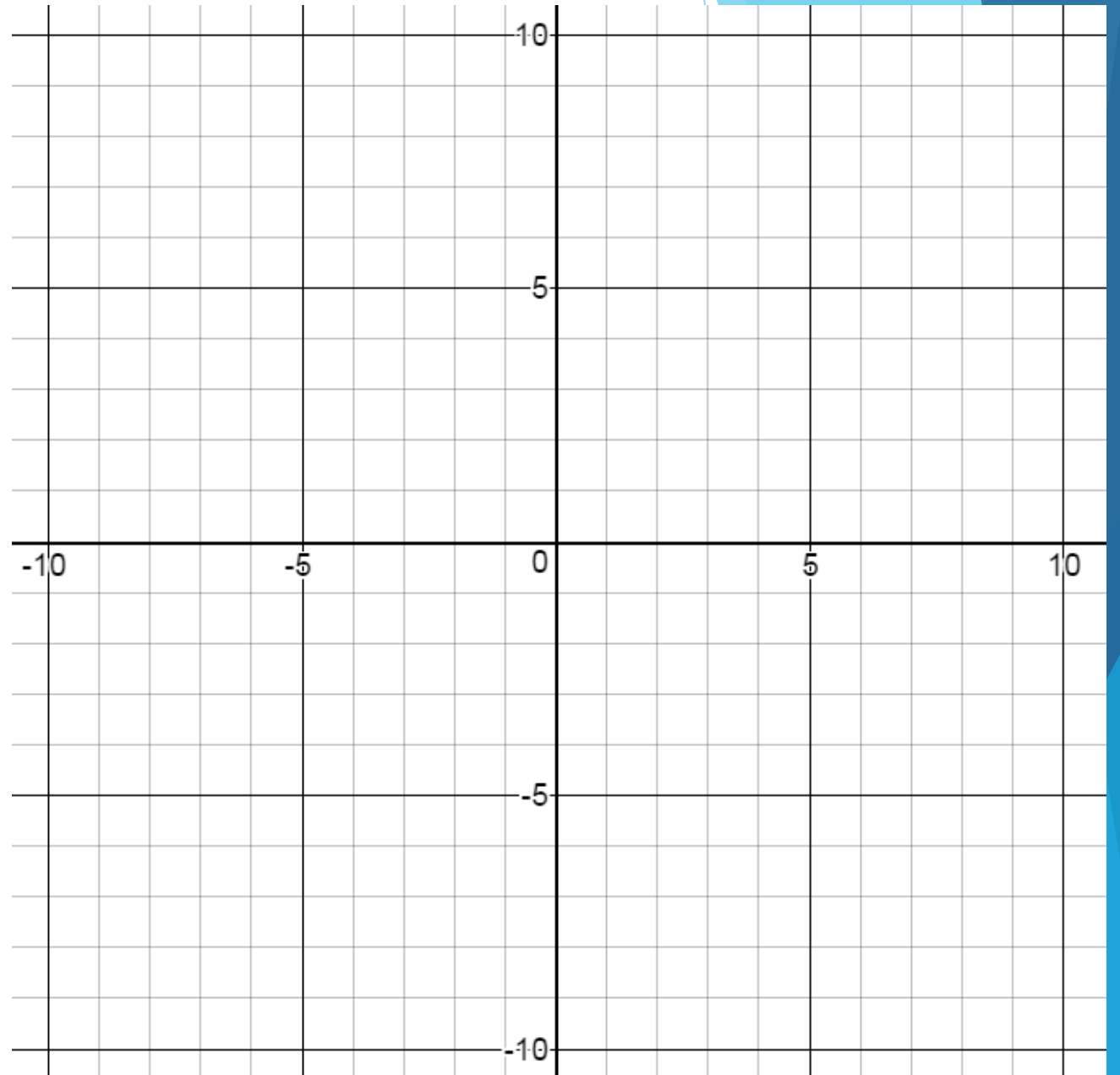
$$y = -\frac{1}{3}x - 3$$

2. $y = -\frac{5}{3}x + 1$

$$y = x + 1$$

3. $y = x - 3$

Your turn! Complete # 1-10 on CW19.



3.3 Systems of Inequalities

SWBAT visually represent solutions to systems of inequalities.

Assignments:

HW19

Review...

- ▶ Steps to graphing an inequality
 1. Determine slope and y-intercept and plot points
 2. Dotted or solid?
 3. Arrows up or down?
 4. Shade side with arrows

► Solve the system of inequalities.

$$y > -\frac{4}{3}x + 1$$

$$y > -\frac{1}{3}x - 2$$

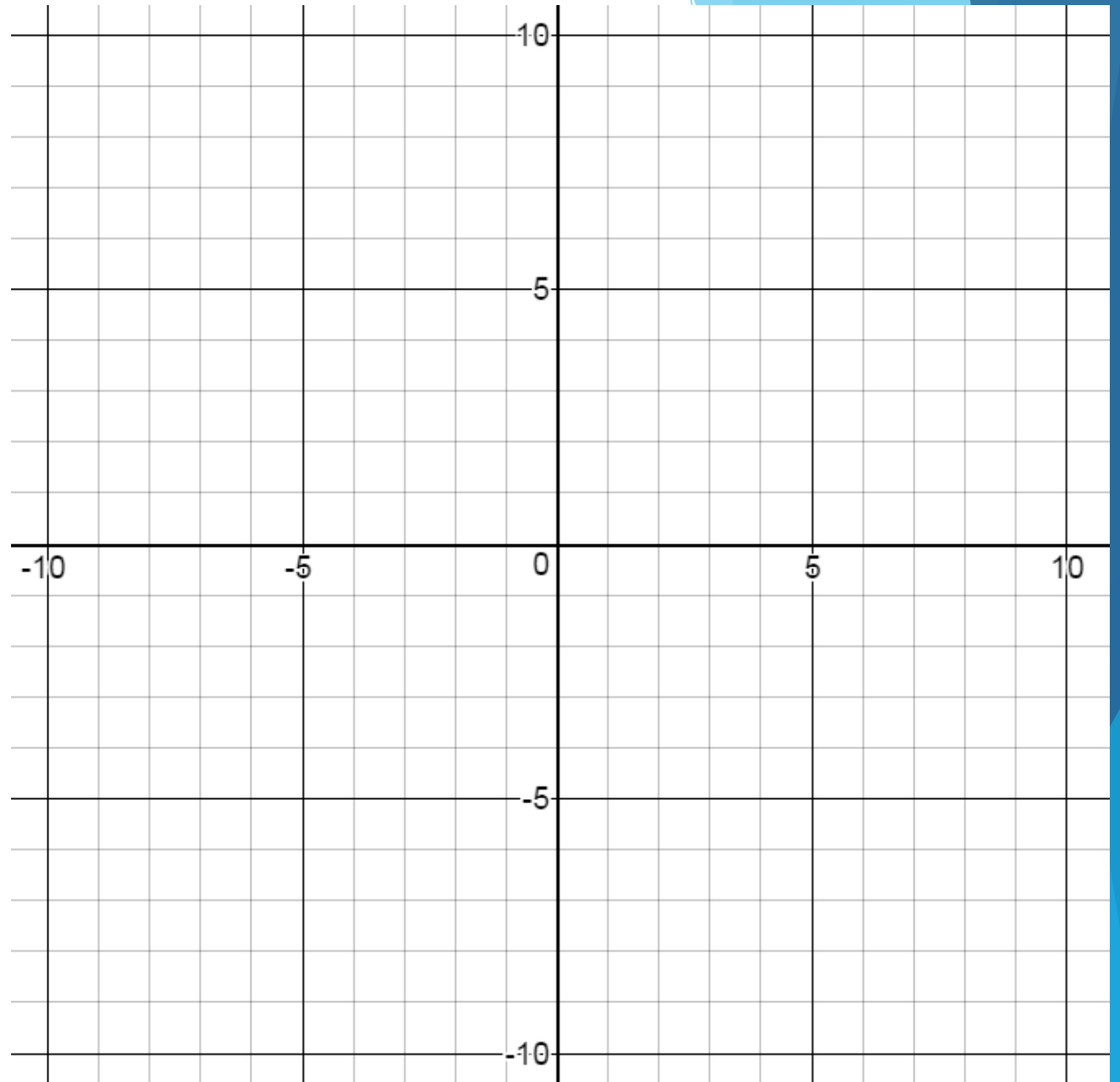
1. $y \leq \frac{1}{3}x + 3$

$y > -\frac{1}{3}x + 1$

2. $y \leq 2x - 3$

$y < 2x + 1$

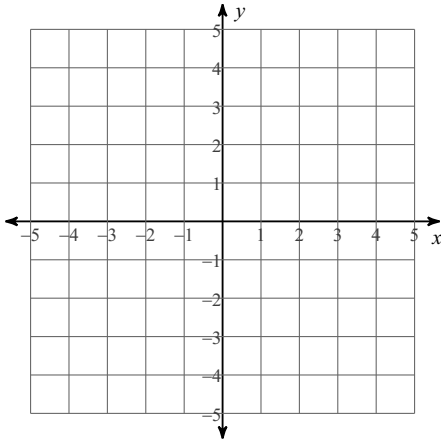
Your turn! Complete #11-20 on CW19.



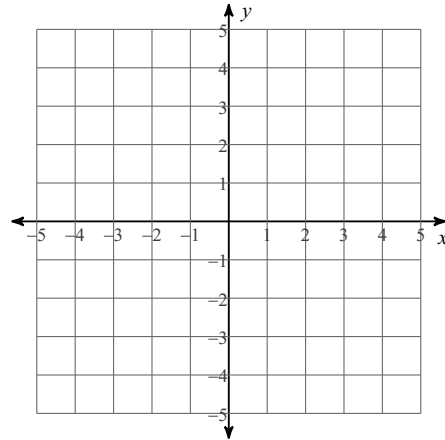
CW19: Graphing Systems

Solve each system by graphing.

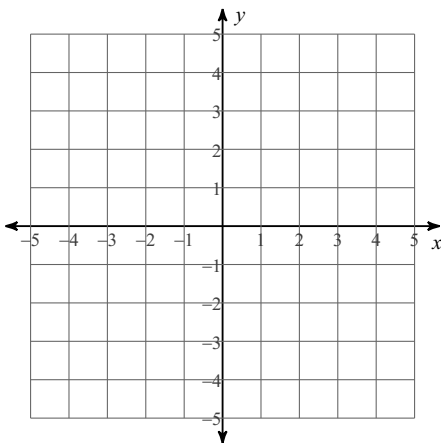
$$1) \begin{aligned} y &= -x - 3 \\ y &= -6x + 2 \end{aligned}$$



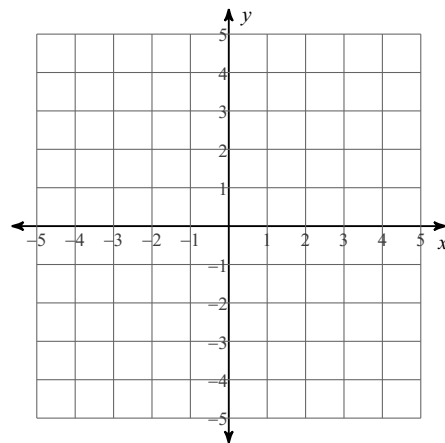
$$2) \begin{aligned} y &= x + 1 \\ y &= -x + 3 \end{aligned}$$



$$3) \begin{aligned} y &= -\frac{7}{3}x + 3 \\ y &= -\frac{7}{3}x + 4 \end{aligned}$$

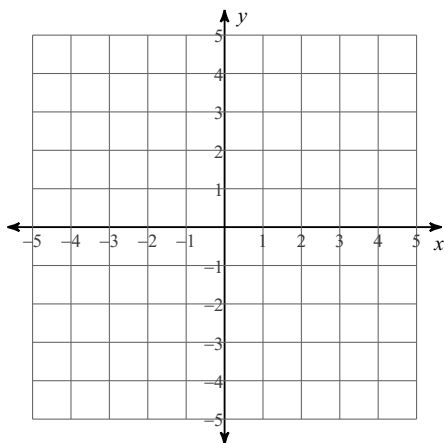


$$4) \begin{aligned} y &= -\frac{1}{3}x - 4 \\ y &= \frac{5}{3}x + 2 \end{aligned}$$



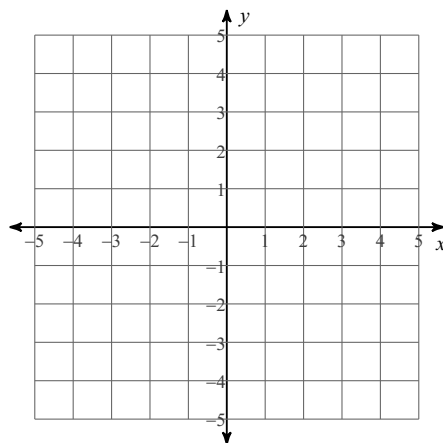
$$5) y = -\frac{5}{3}x + 2$$

$$y = -\frac{1}{3}x - 2$$



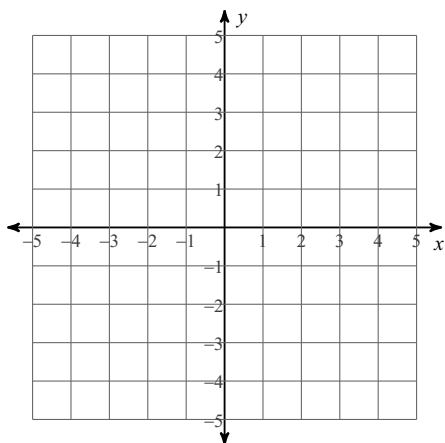
$$6) y = -\frac{1}{4}x + 1$$

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



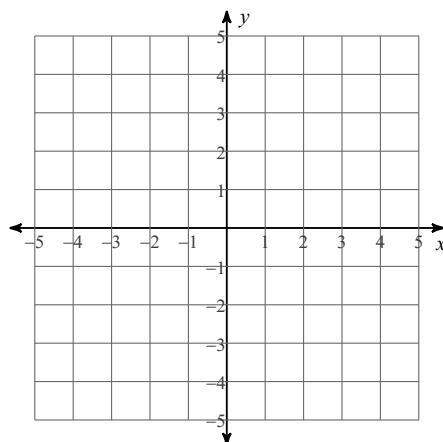
$$7) y = 6x + 2$$

$$y = x - 3$$



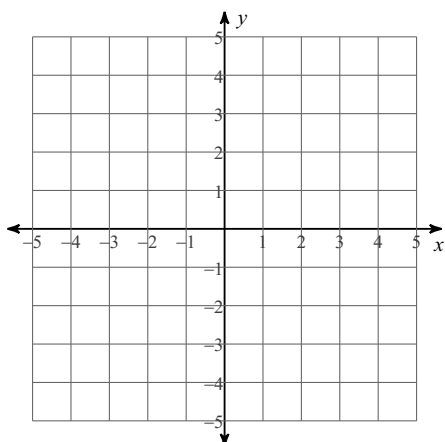
$$8) y = -\frac{1}{2}x + 1$$

$$y = \frac{1}{2}x + 3$$



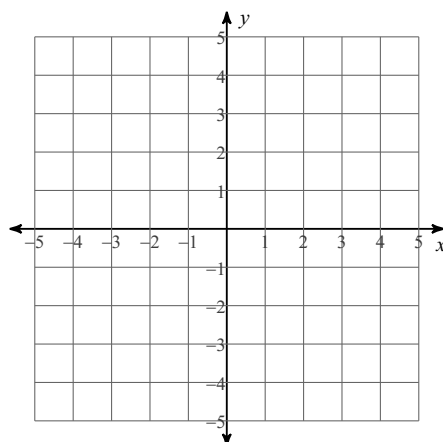
$$9) \ y = \frac{1}{2}x + 3$$

$$y = 4x - 4$$



$$10) \ y = 2x + 2$$

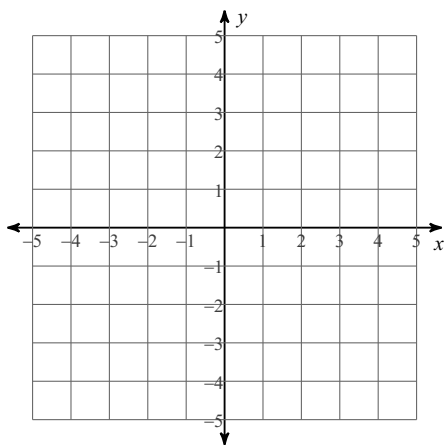
$$y = \frac{2}{3}x - 2$$



Sketch the solution to each system of inequalities.

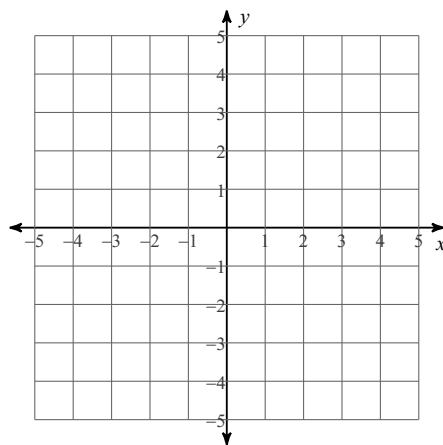
$$11) \ y > \frac{2}{3}x + 3$$

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



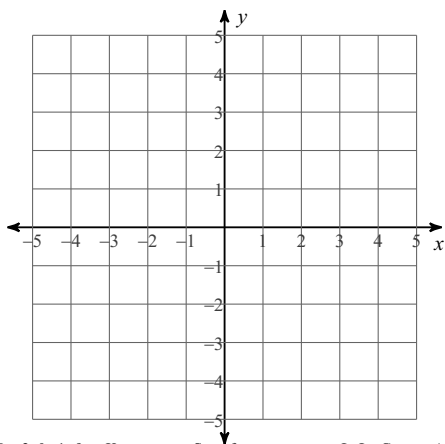
$$12) \ y < \frac{4}{3}x - 1$$

$$y < \frac{1}{3}x + 2$$



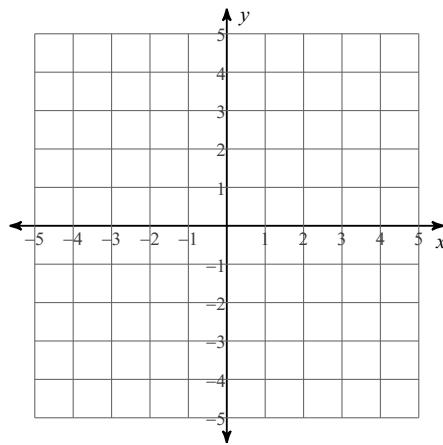
$$13) \ y > -\frac{5}{3}x + 3$$

$$y < \frac{1}{3}x - 3$$



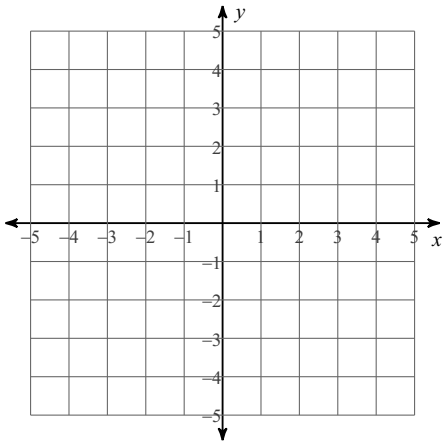
$$14) \ y \leq -6x - 3$$

$$y \leq -x + 2$$



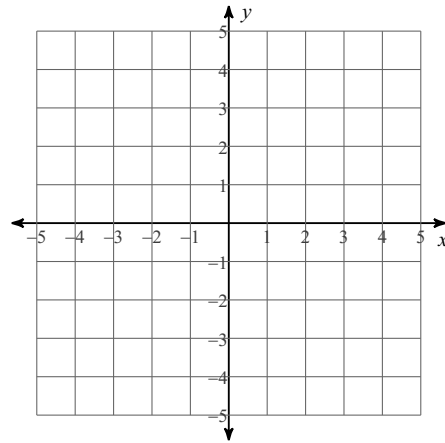
$$15) y \geq \frac{1}{3}x + 3$$

$$y < -\frac{5}{3}x - 3$$



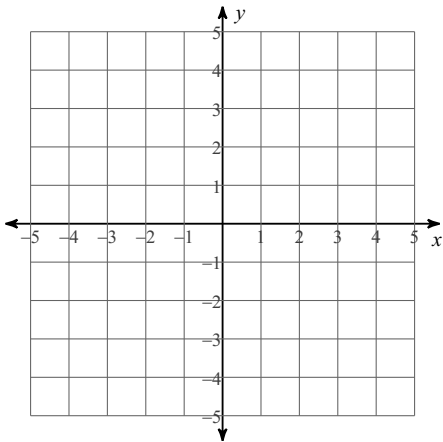
$$16) y \leq \frac{1}{3}x - 2$$

$$y < \frac{4}{3}x + 1$$



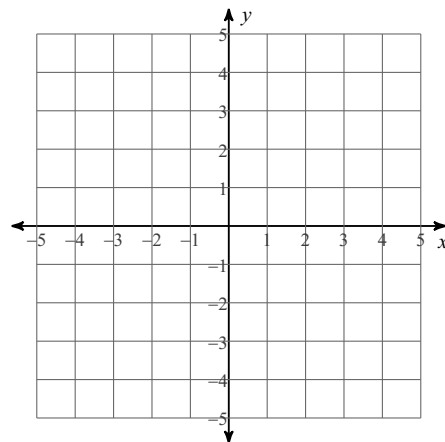
$$17) y > 2x - 2$$

$$y \leq 2$$



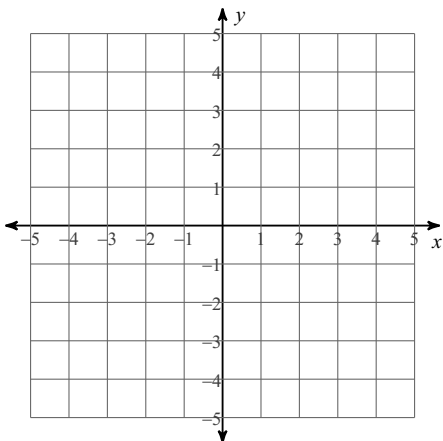
$$18) y > \frac{2}{3}x - 1$$

$$y > 2x + 3$$



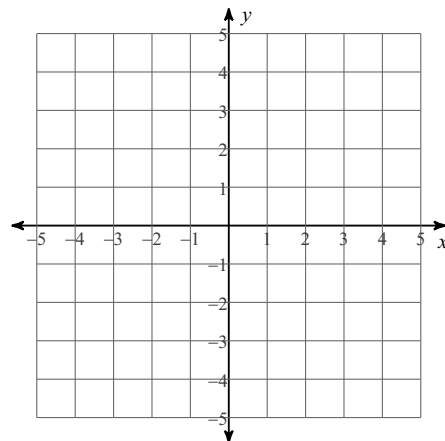
$$19) y \geq 2x - 3$$

$$y < -x + 3$$



$$20) y > -x - 3$$

$$y \leq 2x + 3$$



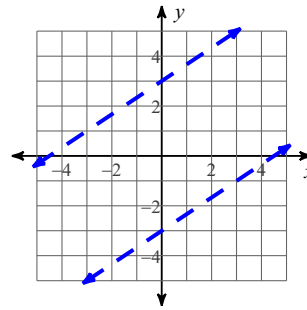
Answers to CW19: Graphing Systems

- 1) $(1, -4)$
 5) $(3, -3)$
 9) $(2, 4)$

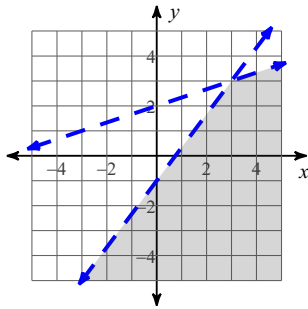
- 2) $(1, 2)$
 6) $(-4, 2)$
 10) $(-3, -4)$

- 3) No solution
 7) $(-1, -4)$
 11)

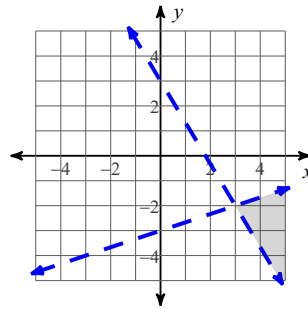
- 4) $(-3, -3)$
 8) $(-2, 2)$



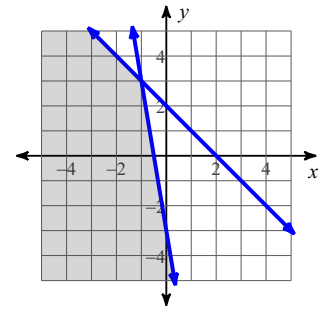
12)



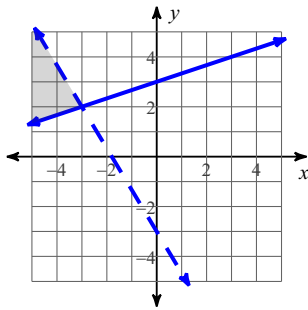
13)



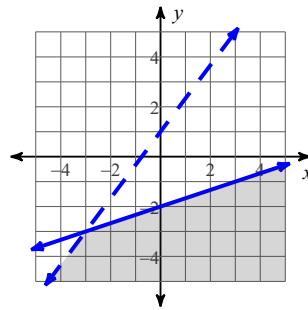
14)



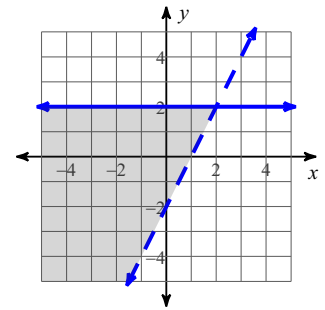
15)



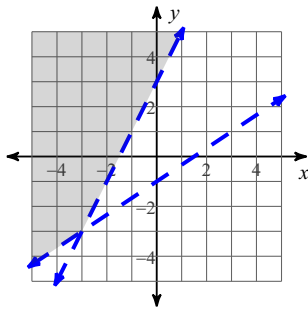
16)



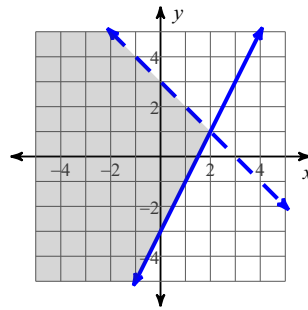
17)



18)



19)



20)

