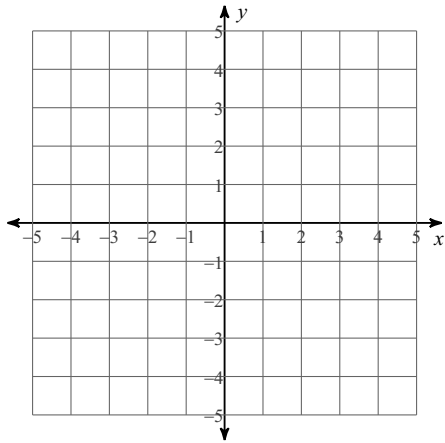


Extra Credit: Systems of Inequalities

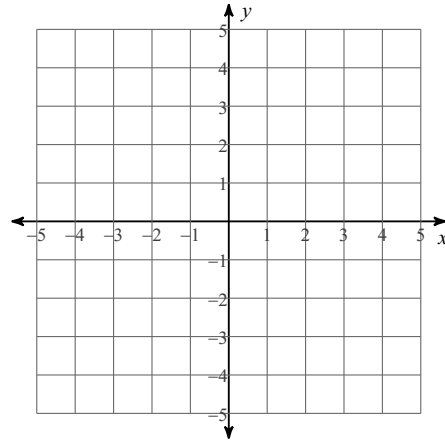
Sketch the solution to each system of inequalities.

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

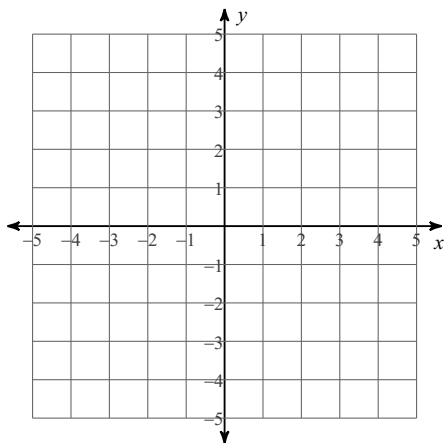
$y \leq -\frac{1}{2}x + 1$



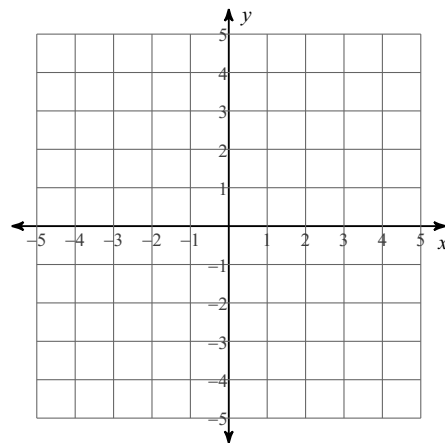
2)  $y \leq x + 3$   
 $y \leq -2x - 3$



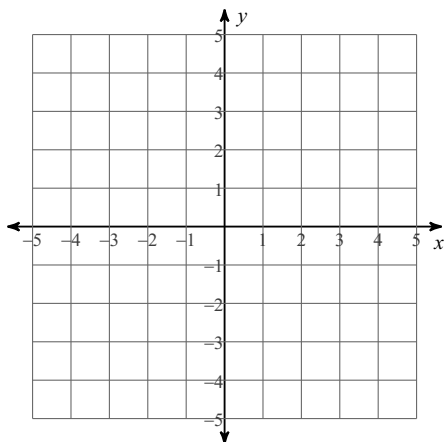
3)  $y < -x - 2$   
 $x > 1$



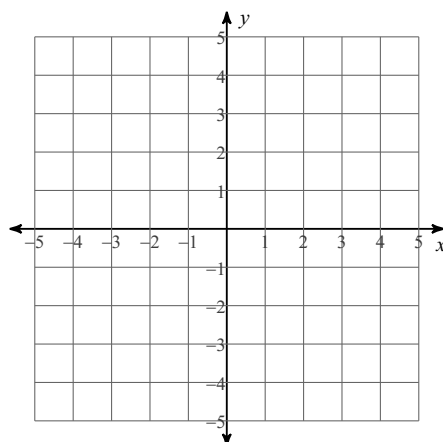
4)  $y < x - 2$   
 $y > 5x + 2$



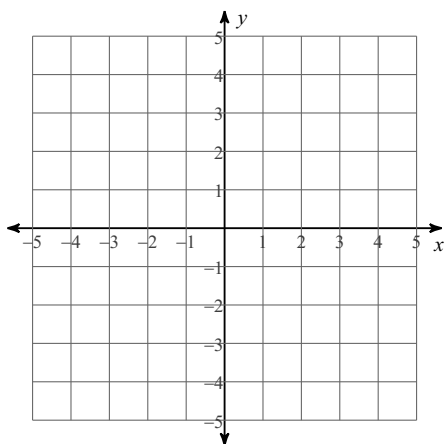
$$5) \begin{aligned} y &\geq -1 \\ y &\geq -3x + 2 \end{aligned}$$



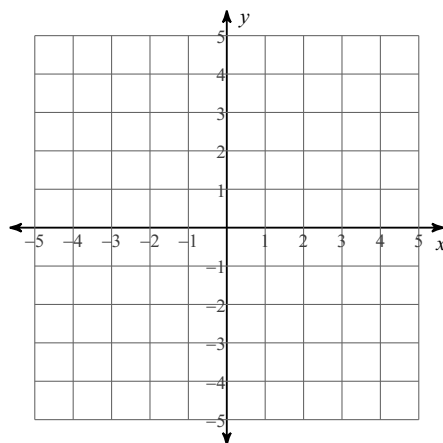
$$6) \begin{aligned} y &\leq -3x + 3 \\ y &\geq -\frac{1}{2}x - 2 \end{aligned}$$



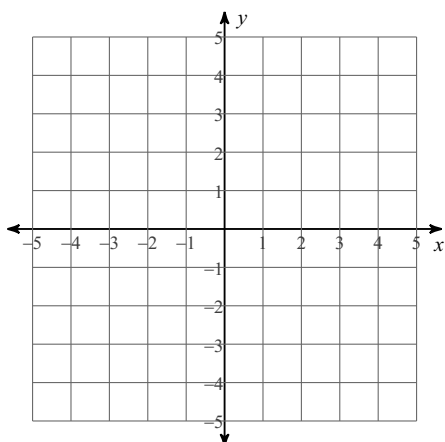
$$7) \begin{aligned} y &\geq \frac{1}{3}x + 2 \\ y &\geq -\frac{4}{3}x - 3 \end{aligned}$$



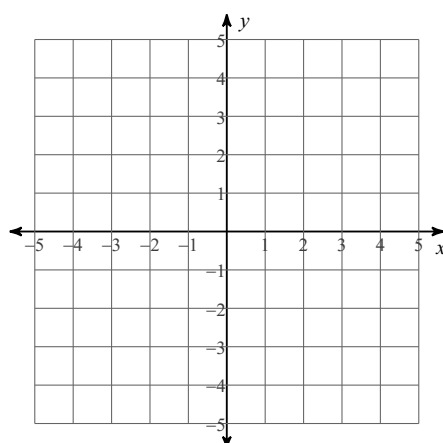
$$8) \begin{aligned} y &> -4x - 1 \\ y &< -x + 2 \end{aligned}$$



$$9) \begin{aligned} y &\leq -5x + 3 \\ y &\leq -x - 1 \end{aligned}$$

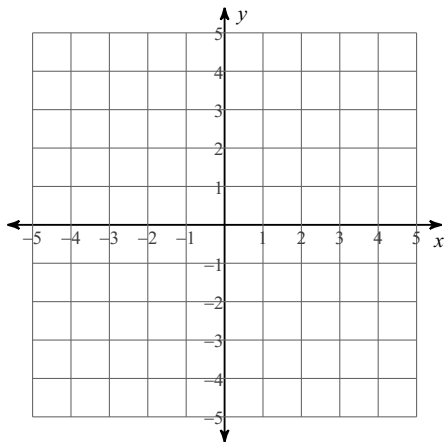


$$10) \begin{aligned} y &\geq -\frac{3}{2}x - 2 \\ y &> \frac{1}{2}x + 2 \end{aligned}$$



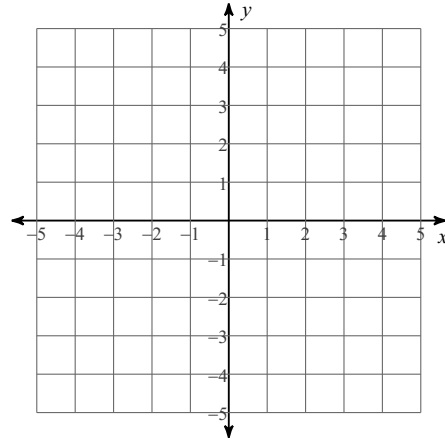
$$11) y \leq -\frac{1}{3}x - 3$$

$$y < x + 1$$



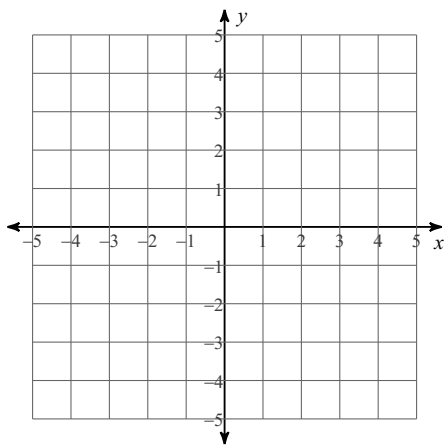
$$12) y \geq -3$$

$$y \leq -2x + 1$$



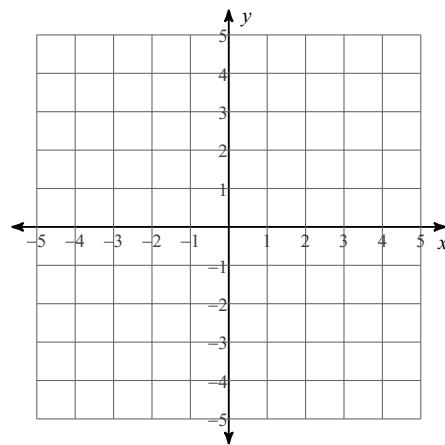
$$13) y < x + 2$$

$$x < -3$$



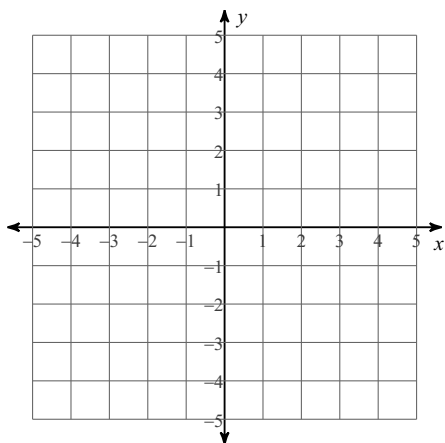
$$14) y < x + 3$$

$$y \leq -3x - 1$$



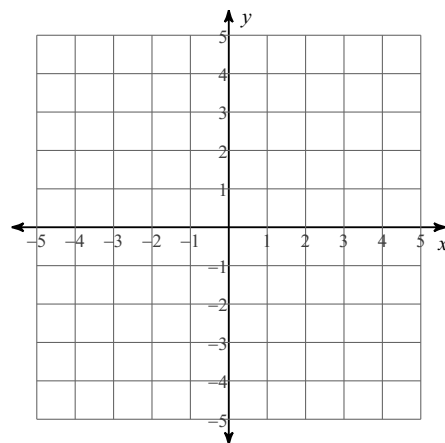
$$15) y \leq -x - 3$$

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

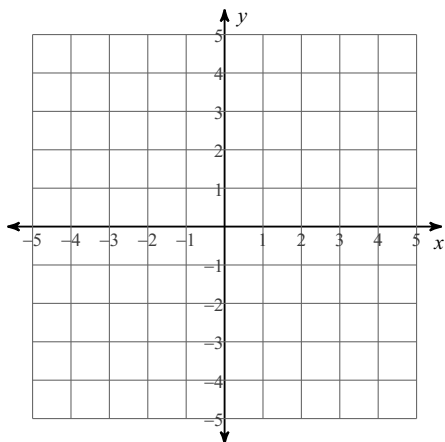


$$16) y < -2x - 2$$

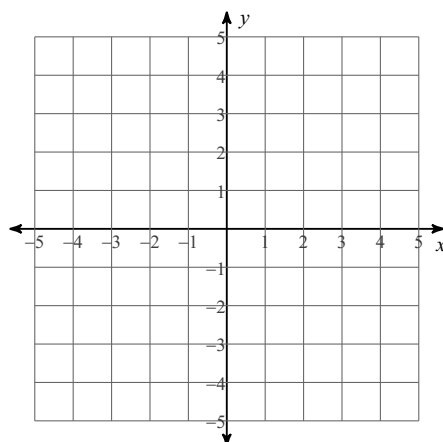
$$y \leq \frac{1}{2}x + 3$$



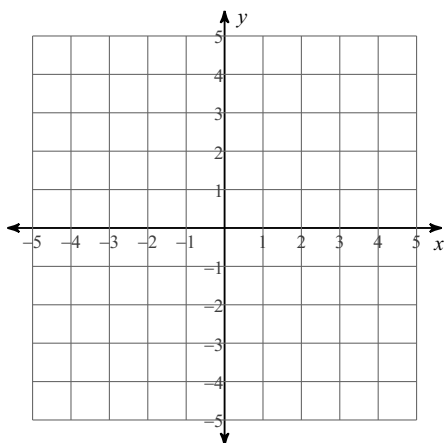
$$17) \begin{aligned} y &< 5x - 3 \\ y &\leq 5x - 2 \end{aligned}$$



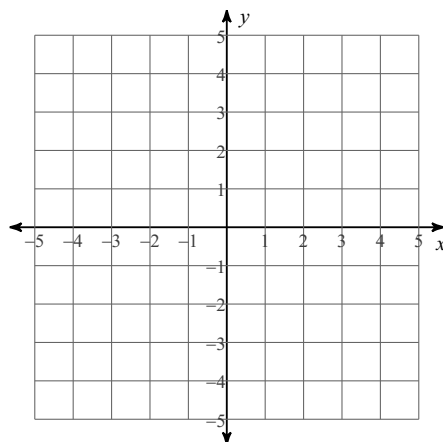
$$18) \begin{aligned} x &\geq -3 \\ y &\geq \frac{5}{3}x + 2 \end{aligned}$$



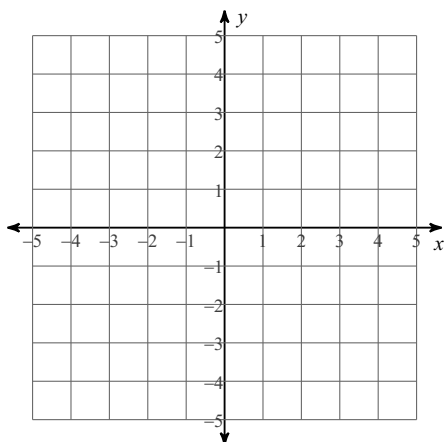
$$19) \begin{aligned} y &\geq -x + 1 \\ y &> -x - 1 \end{aligned}$$



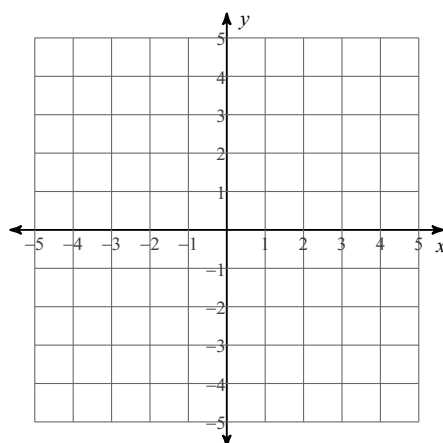
$$20) \begin{aligned} y &\geq -\frac{1}{2}x + 1 \\ y &> -2x - 2 \end{aligned}$$



$$21) \begin{aligned} y &< -2x - 3 \\ y &< \frac{1}{2}x + 2 \end{aligned}$$

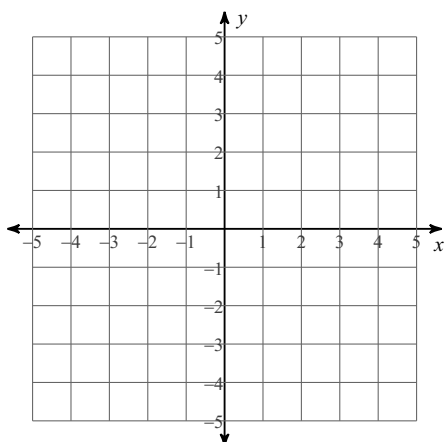


$$22) \begin{aligned} y &\geq \frac{1}{2}x - 1 \\ y &\leq \frac{5}{2}x + 3 \end{aligned}$$



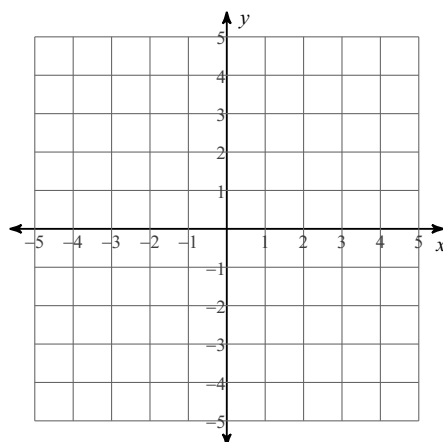
$$23) y \leq \frac{1}{2}x + 3$$

$$y > -2x - 2$$



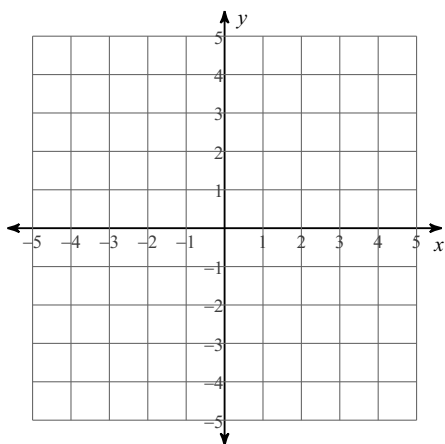
$$24) y \geq -\frac{1}{2}x + 2$$

$$y > -3x - 3$$



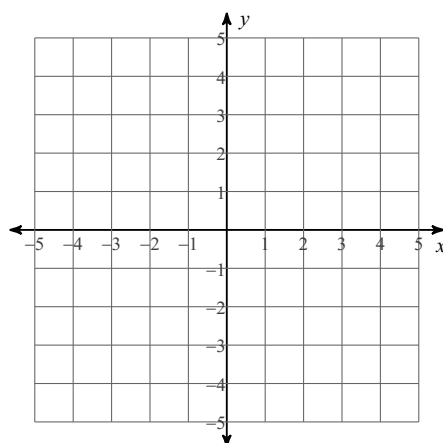
$$25) y \geq \frac{5}{2}x + 3$$

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



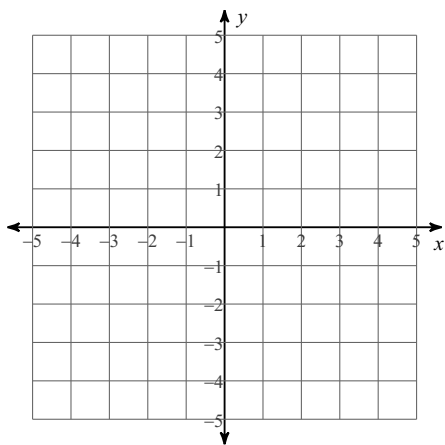
$$26) x \leq -2$$

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



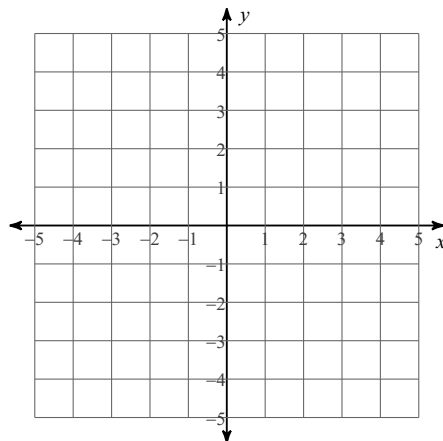
$$27) y > 2x + 3$$

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



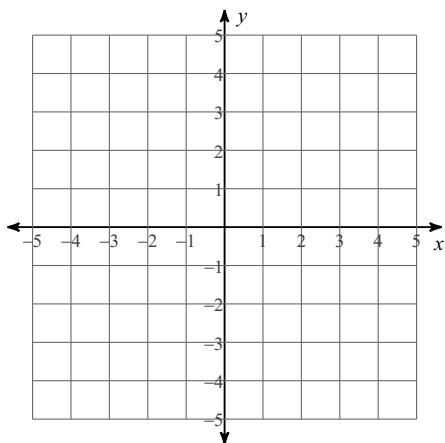
$$28) y < -\frac{4}{3}x + 3$$

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



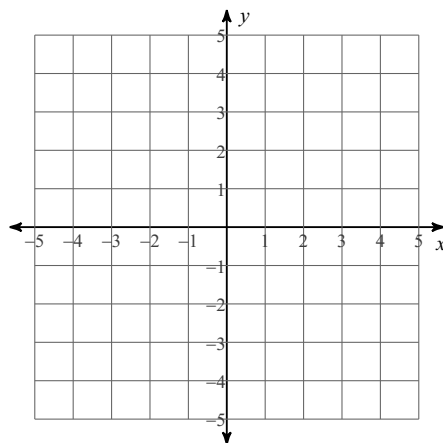
$$29) y > -\frac{1}{2}x - 1$$

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



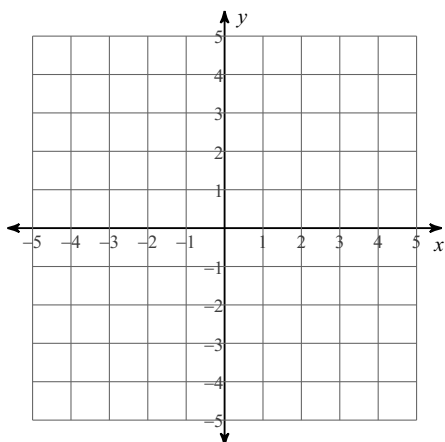
$$30) y > -\frac{1}{2}x + 3$$

$$y < \frac{5}{2}x - 3$$



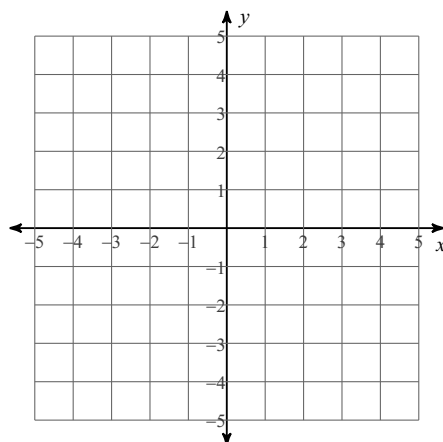
$$31) y \leq -\frac{2}{3}x + 1$$

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



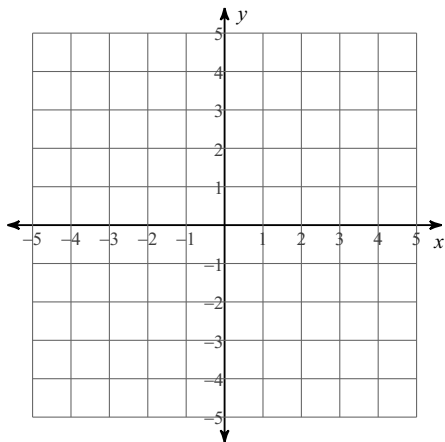
$$32) y > \frac{5}{2}x + 2$$

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



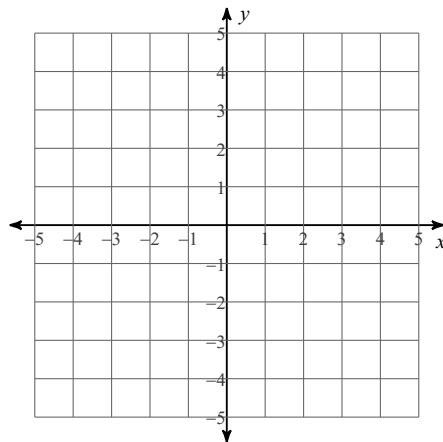
$$33) y \leq -\frac{5}{2}x + 2$$

$$y < -\frac{5}{2}x - 1$$



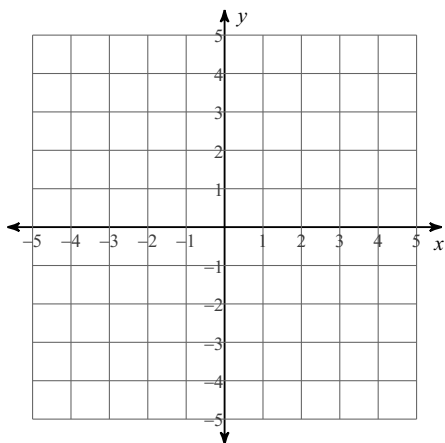
$$34) y \geq -\frac{1}{3}x + 2$$

$$y \leq -\frac{5}{3}x - 2$$



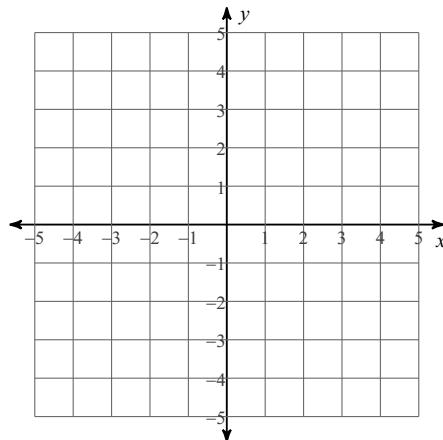
$$35) y \leq -\frac{4}{3}x - 2$$

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



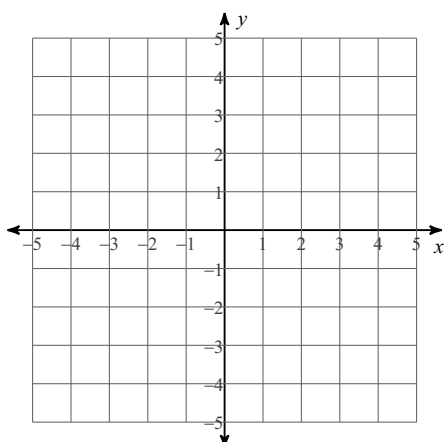
$$36) y > x + 2$$

$$y \geq 6x - 3$$



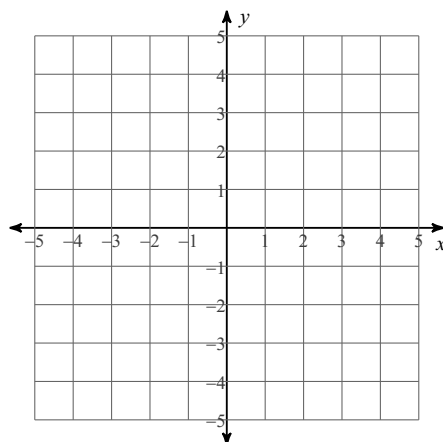
$$37) y > \frac{5}{2}x + 3$$

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



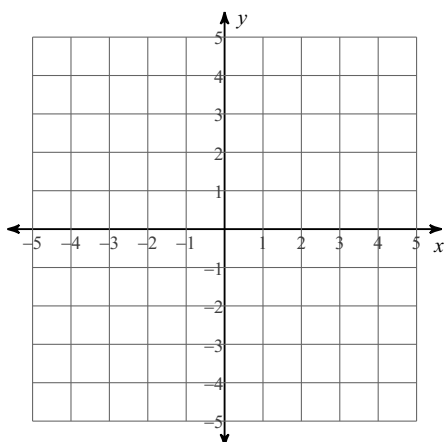
$$38) y \geq \frac{2}{3}x - 1$$

$$x > -3$$



$$39) y \geq -\frac{1}{2}x + 2$$

$$y \leq -\frac{5}{2}x - 2$$



$$40) y < -2x + 3$$

$$y < 2x - 1$$

