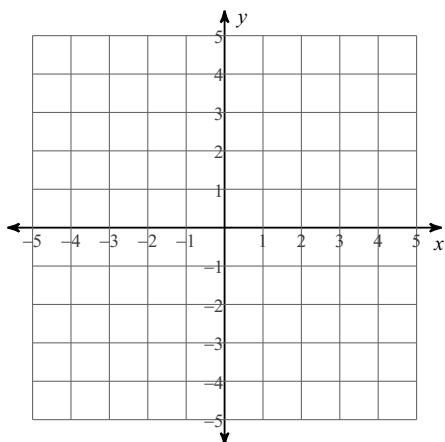


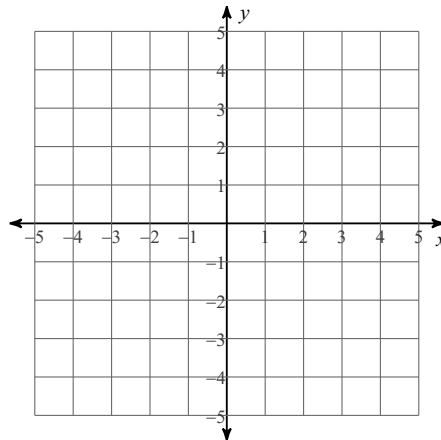
Systems of Inequalities with Quadratics

Sketch the solution to each system of inequalities.

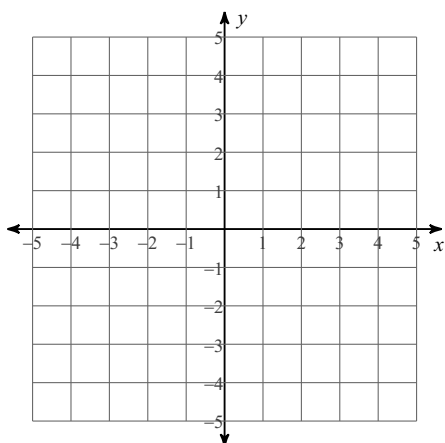
1) $x > -2$
 $y \leq -\frac{3}{2}x - 1$



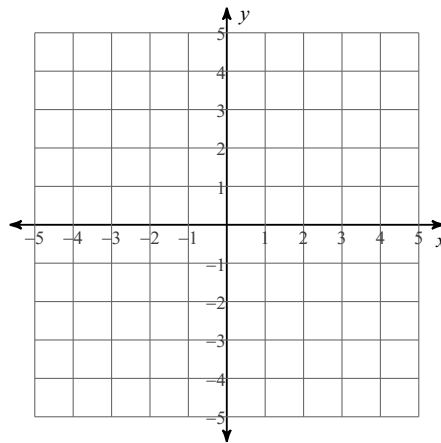
2) $y > x - 2$
 $y \leq -2x + 1$



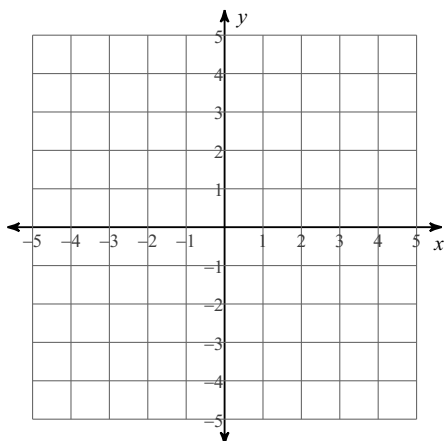
3) $y \geq -1$
 $y \leq \frac{4}{3}x + 3$



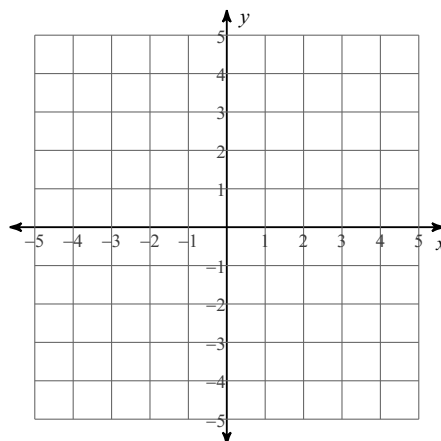
4) $3x - 2y > -4$
 $x + 2y \leq -4$



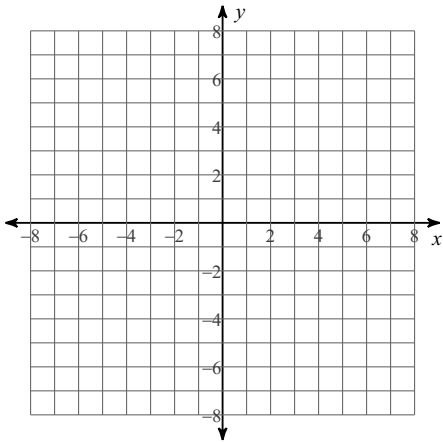
5) $x - 2y < -4$
 $2x + y < -3$



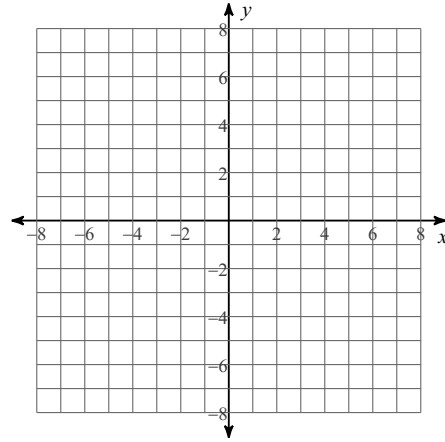
6) $2x - y < 3$
 $4x + y \leq 3$



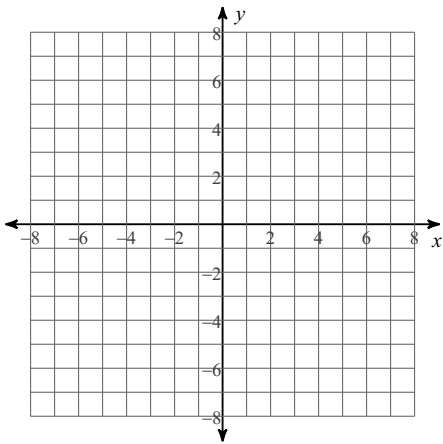
$$7) \begin{aligned} y &> x^2 - 4x - 2 \\ y &\leq \frac{2}{3}x + 3 \end{aligned}$$



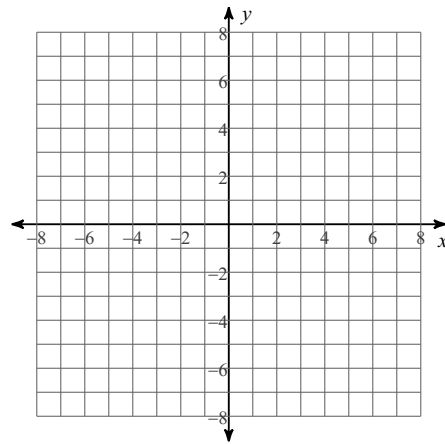
$$8) \begin{aligned} y &> -x^2 - 4x - 2 \\ y &\leq 3 \end{aligned}$$



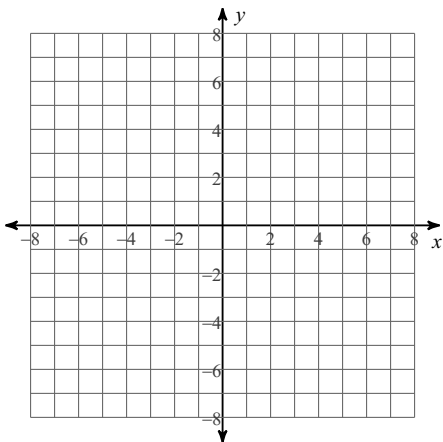
$$9) \begin{aligned} y &> -2x^2 - 4x + 3 \\ y &\geq \frac{5}{3}x + 3 \end{aligned}$$



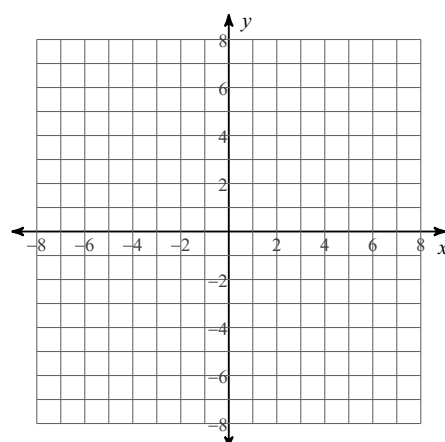
$$10) \begin{aligned} y &> \frac{1}{2}x^2 - 2x - 1 \\ y &> -x + 3 \end{aligned}$$



$$11) \begin{aligned} y &> x^2 - 4x - 2 \\ y &\leq -x^2 + 5 \end{aligned}$$

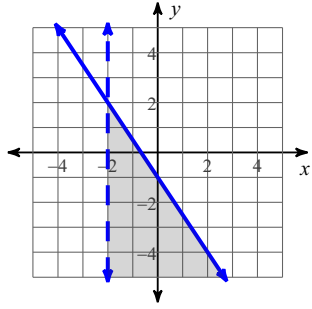


$$12) \begin{aligned} y &> -2x^2 - 8x - 2 \\ y &\geq (x + 3)^2 - 2 \end{aligned}$$

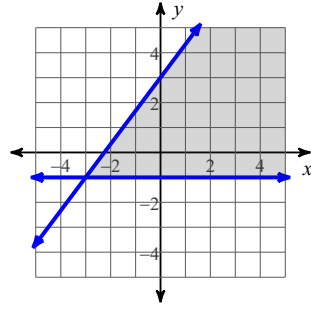


Answers to Systems of Inequalities with Quadratics (ID: 1)

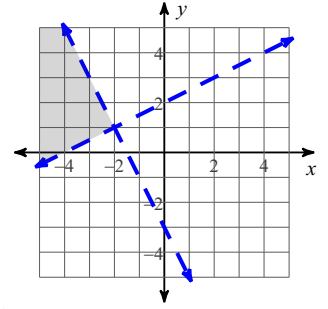
1)



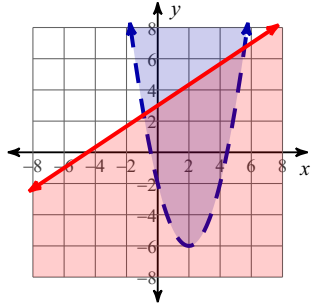
3)



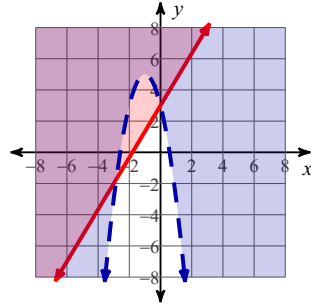
5)



7)



9)



11)

