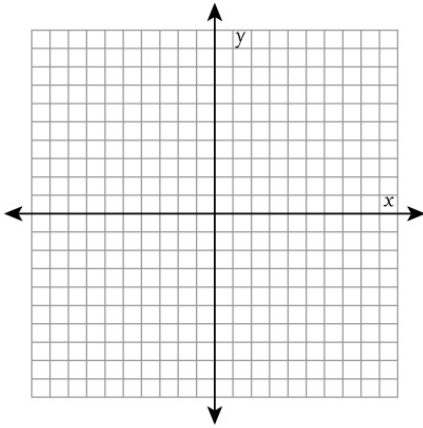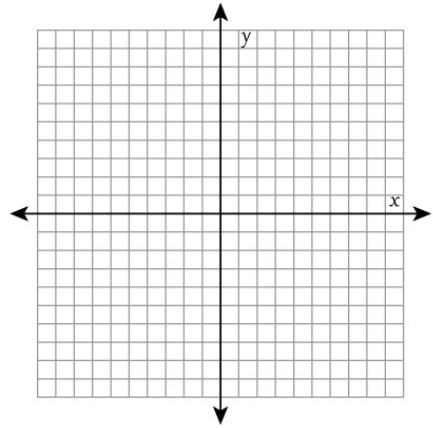# Solving Systems of Inequalities

Solve each system of inequalities by graphing.
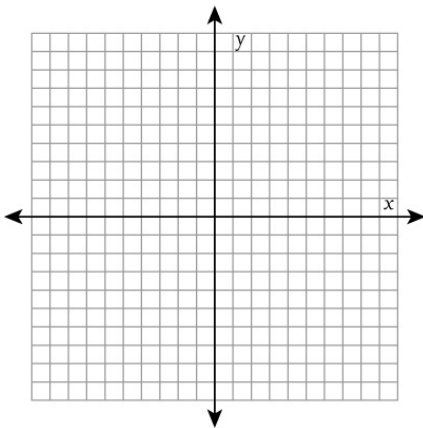
1. $y - x \leq 4$
   $-2x + y \geq 4$
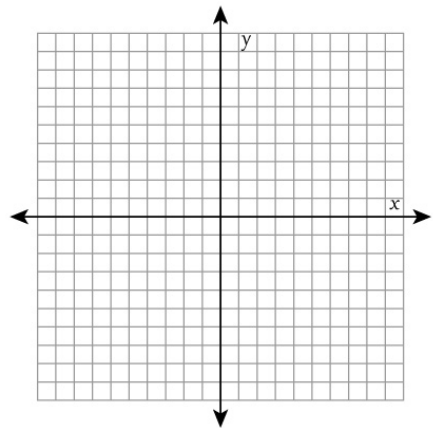
2. $y \leq x + 4$
   $y \leq -x + 4$
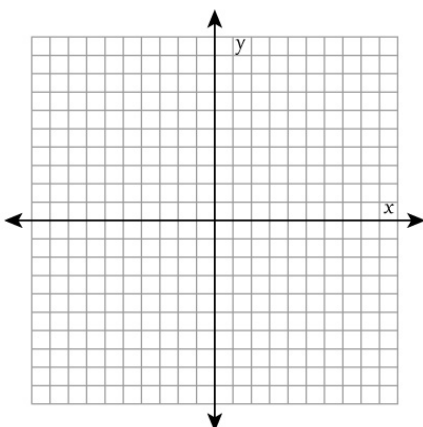 $y \geq -2$

3. $x \leq 10$
   $x \geq -2$
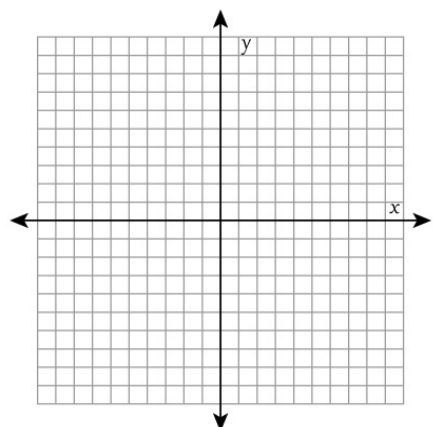 $3x + 2y < 6$
   $6x + 4y > -12$

4. $y \geq x$
   $x + 3y < 5$
   $2x + y \geq -3$

5. $x + y \leq 3$
   $y - x \leq 3$
   $y \geq -1$

6. $x \geq -3$
   $y + x \leq 8$
   $y - x \geq -2$

Solving Systems of Inequalities

Answers

1) $y - x \leq 4$
$-2x + y \geq 4$

2) $y \leq x + 4$
$y \leq -x + 4$
$y \geq -2$

3) $x \leq 10$
$x \geq -2$
$3x + 2y < 6$
$6x + 4y > -12$

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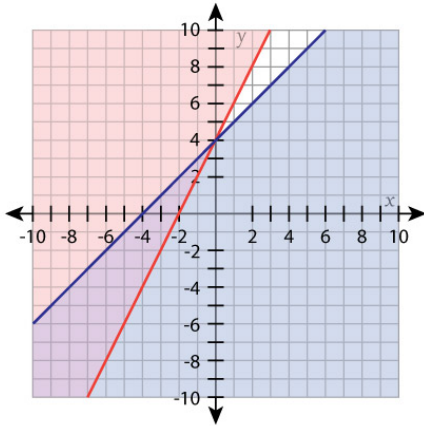

5) $x + y \leq 3$
$y - x \leq 3$
$y \geq -1$

6) $x \geq -3$
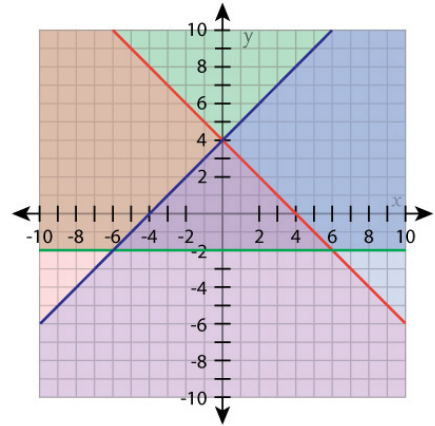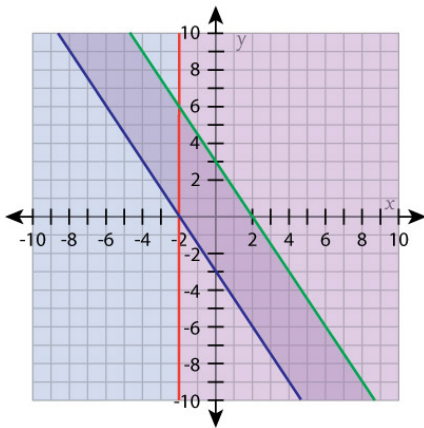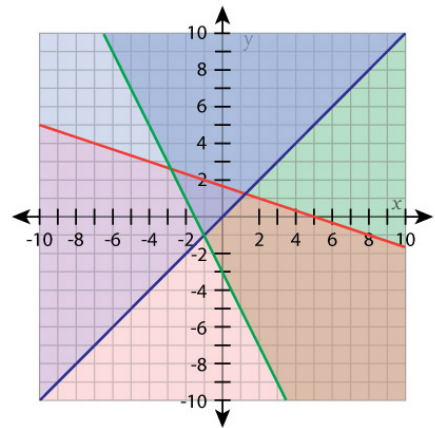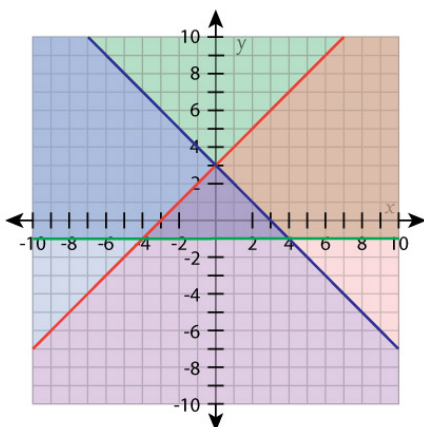$y + x \leq 8$
$y - x \geq -2$