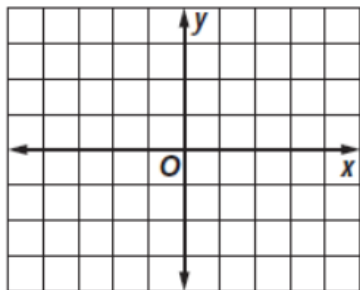


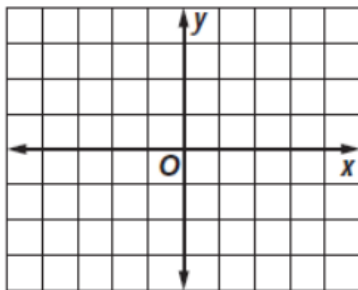
Assignment

Solve each system of equations by graphing.

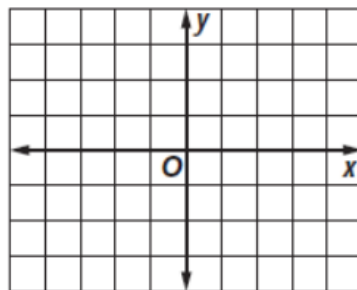
1. $x = 2$
 $y = 0$



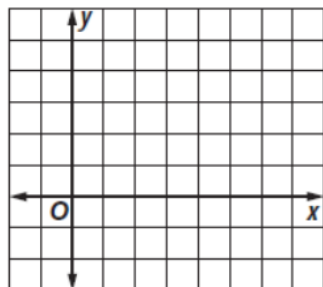
2. $y = -3x + 6$
 $y = 2x - 4$



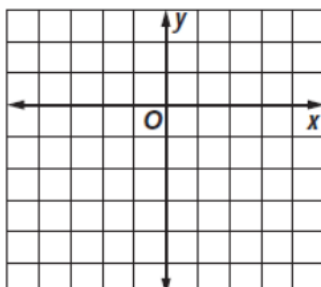
3. $y = 4 - 3x$
 $y = -\frac{1}{2}x - 1$



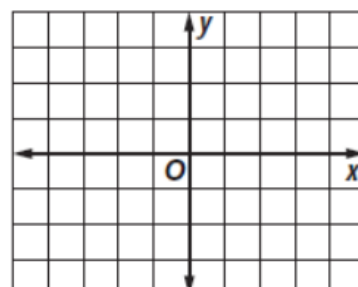
4. $y = 4 - x$
 $y = x - 2$



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

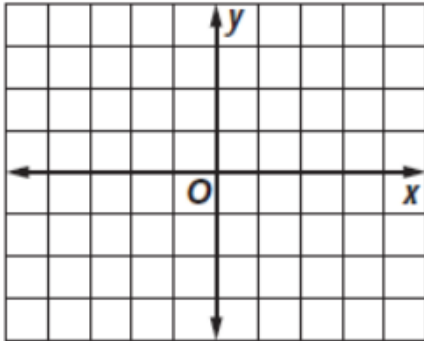


6. $y = x$
 $y = -3x + 4$

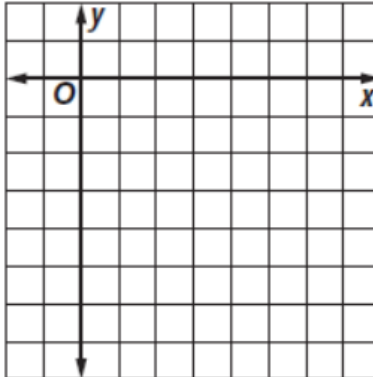


Graph each system of equations and describe it as *consistent and independent*, *consistent and dependent*, or *inconsistent*.

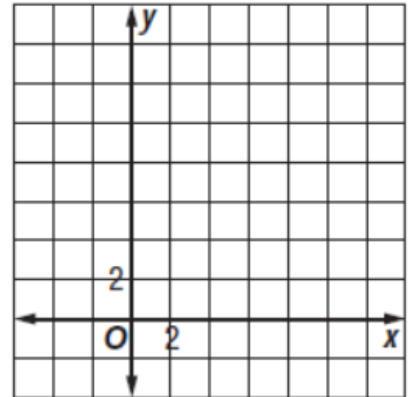
7. $y = -3x$
 $y = -3x + 2$



8. $y = x - 5$
 $-2x + 2y = -10$



9. $2x - 5y = 10$
 $3x + y = 15$



Solve each system of equations by using substitution.

1. $m + n = 20$
 $m - n = -4$

2. $x + 3y = -3$
 $4x + 3y = 6$

3. $x - y = 1$
 $2x + 3y = 12$

4. $3x + y = 5$
 $2x - y = 5$

5. $2x + 3y = -4$
 $x + y = 3$

Assignment

Solve each system of equations by using elimination.

1. $2x - y = 5$
 $3x + y = 5$

2. $2x - y = 3$
 $3x + y = 2$

3. $3x - 2y = 2$
 $3x + 4y = 50$

4. $2f + 3g = 9$
 $f - g = 2$

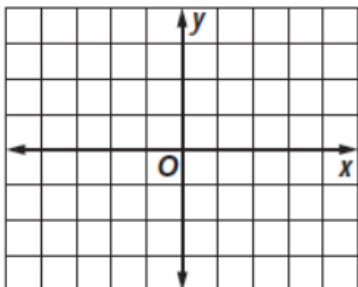
5. $-2x + y = -1$
 $x + 2y = 3$

6. $2x - y = 12$
 $2x - y = 6$

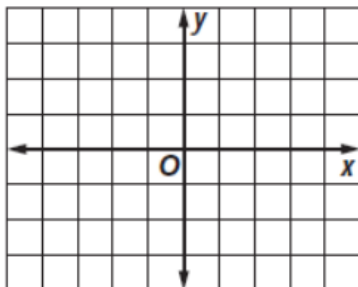
Assignment

Solve each system of inequalities by graphing.

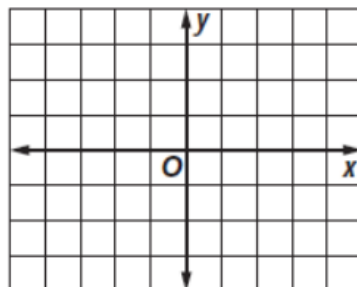
1. $x < 1$
 $y \geq -1$



2. $x \geq -3$
 $y \geq -3$

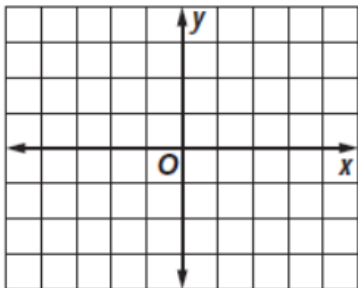


3. $x \leq 2$
 $x > 4$

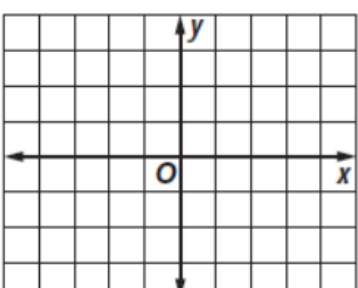


Find the coordinates of the vertices of the figure formed by each system of inequalities.

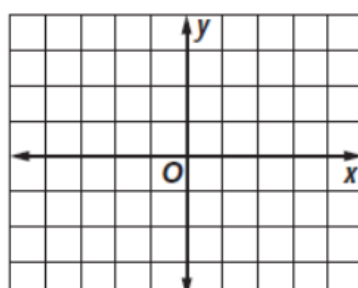
$y < 1$
4. $x < 0$
 $y \geq -x - 1$



$y \geq 3 - x$
5. $y \leq 3$
 $x < 5$

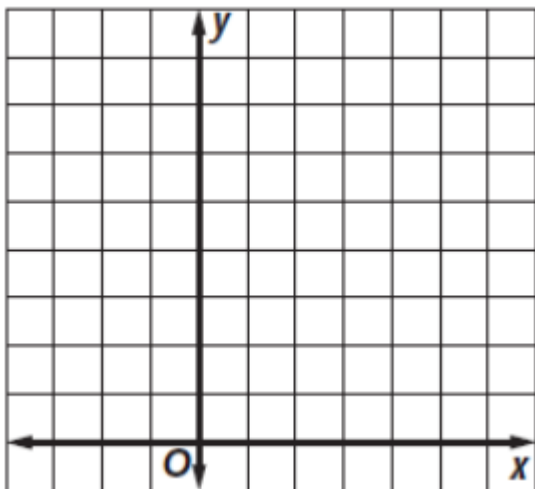


$x \geq -2$
6. $y \geq x - 2$
 $x + y \leq 2$

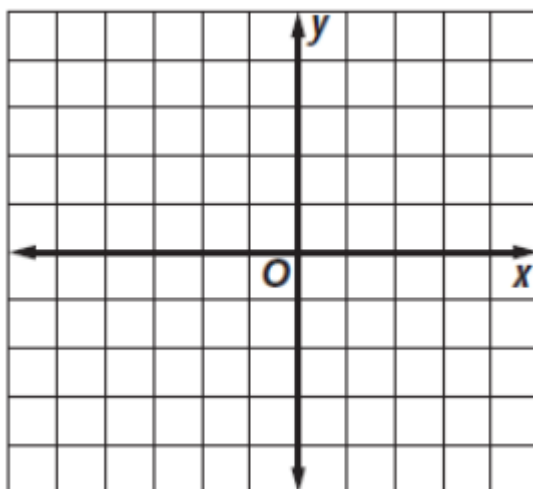


Graph each system of inequalities. Name the coordinates of the vertices of the feasible region. Find the maximum and minimum values of the given function for this region.

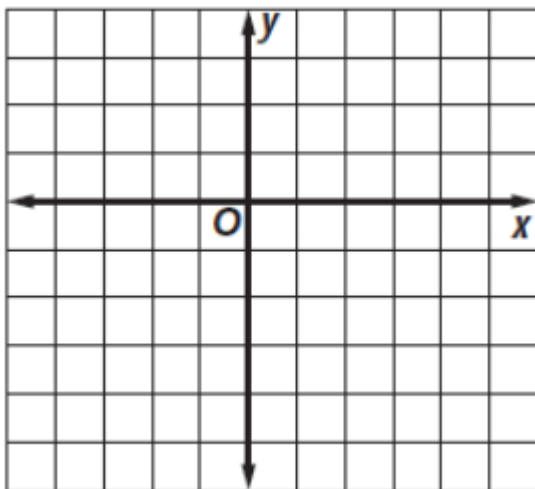
1. $y \geq 2$
 $1 \leq x \leq 5$
 $y \leq x + 3$
 $f(x, y) = 3x - 2y$



2. $y \geq -2$
 $y \geq 2x - 4$
 $x - 2y \geq -1$
 $f(x, y) = 4x - y$



3. $x + y \geq 2$
 $4y \leq x + 8$
 $y \geq 2x - 5$
 $f(x, y) = 4x + 3y$



A glass blower can form 8 simple vases or 2 elaborate vases in an hour. In a work shift of no more than 8 hours, the worker must form at least 40 vases.

1. Let x represent the hours forming simple vases and y the hours forming elaborate vases. Write a system of inequalities involving the time spent on each type of vase.
2. If the glass blower makes a profit of \$30 per hour worked on the simple vases and \$35 per hour worked on the elaborate vases, write a function for the total profit on the vases.
3. Find the number of hours the worker should spend on each type of vase to maximize profit. What is that profit?