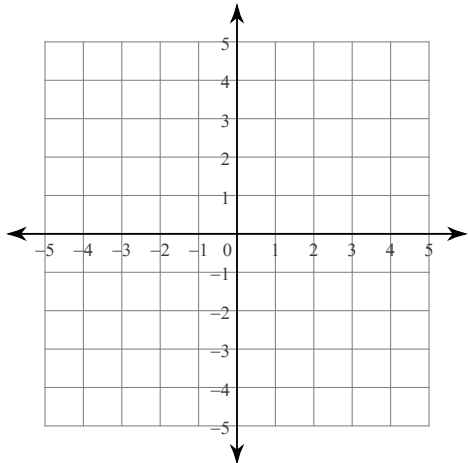


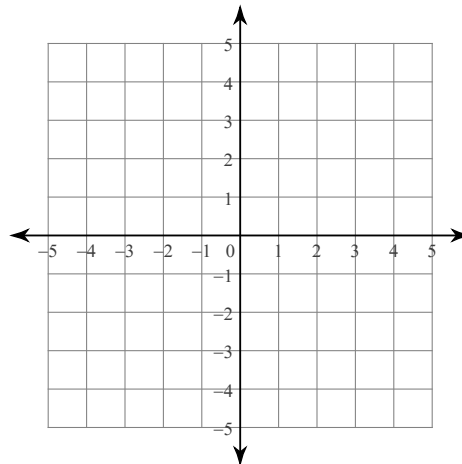
## Assignment 3: Solving Systems of Equations

Solve each system by graphing.

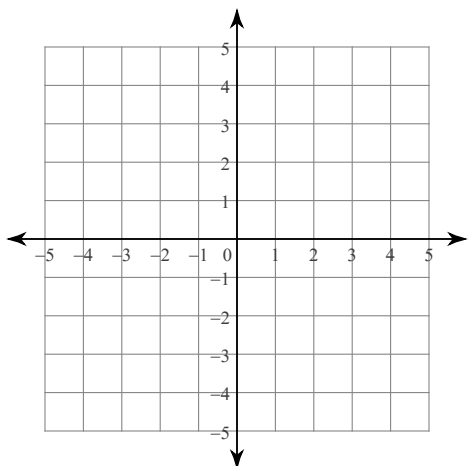
$$1) \begin{aligned} y &= -3x - 2 \\ y &= -\frac{1}{2}x + 3 \end{aligned}$$



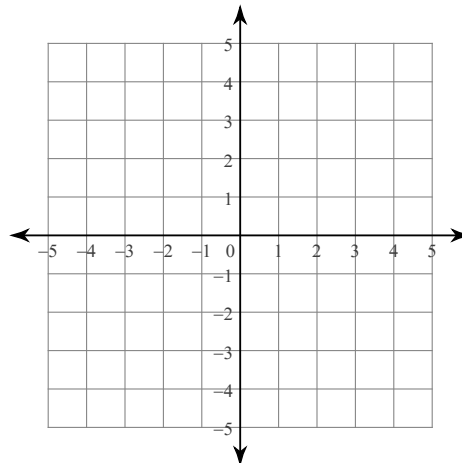
$$2) \begin{aligned} y &= -\frac{1}{2}x - 1 \\ y &= \frac{1}{2}x - 3 \end{aligned}$$



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



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



Solve each system by substitution.

$$5) \begin{aligned} 3x + 3y &= -12 \\ y &= -3x + 4 \end{aligned}$$

$$6) \begin{aligned} 5x - 2y &= -3 \\ y &= 5x + 4 \end{aligned}$$

$$\begin{aligned} 7) \quad y &= 5x - 7 \\ 2x - 2y &= 14 \end{aligned}$$

$$\begin{aligned} 8) \quad y &= 5x + 11 \\ 4x - 3y &= -11 \end{aligned}$$

$$\begin{aligned} 9) \quad 4x + 2y &= -24 \\ y &= x + 3 \end{aligned}$$

**Solve each system by elimination.**

$$\begin{aligned} 10) \quad -10x - 10y &= 30 \\ -5x - 7y &= 17 \end{aligned}$$

$$\begin{aligned} 11) \quad -x + 6y &= -14 \\ 11x - 4y &= 30 \end{aligned}$$

$$\begin{aligned} 12) \quad -8x + 7y &= -27 \\ -3x + 14y &= 24 \end{aligned}$$

$$\begin{aligned} 13) \quad 10x - 5y &= -30 \\ -5x + 10y &= -15 \end{aligned}$$

$$\begin{aligned} 14) \quad 7x - y &= -21 \\ 2x + 8y &= -6 \end{aligned}$$

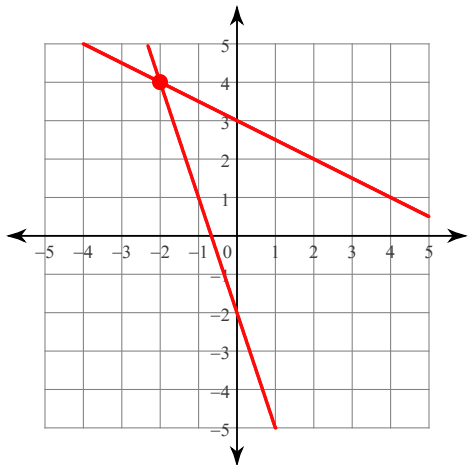
15) Kali and Darryl are selling cookie dough for a school fundraiser. Customers can buy packages of white chocolate chip cookie dough and packages of double chocolate cookie dough. Kali sold 3 packages of white chocolate chip cookie dough and 1 package of double chocolate cookie dough for a total of \$55. Darryl sold 12 packages of white chocolate chip cookie dough and 14 packages of double chocolate cookie dough for a total of \$410. What is the cost each of one package of white chocolate chip cookie dough and one package of double chocolate cookie dough?

16) Kathryn and Imani are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Kathryn sold 1 roll of plain wrapping paper and 9 rolls of shiny wrapping paper for a total of \$151. Imani sold 10 rolls of plain wrapping paper and 7 rolls of shiny wrapping paper for a total of \$182. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

## Assignment 3: Solving Systems of Equations

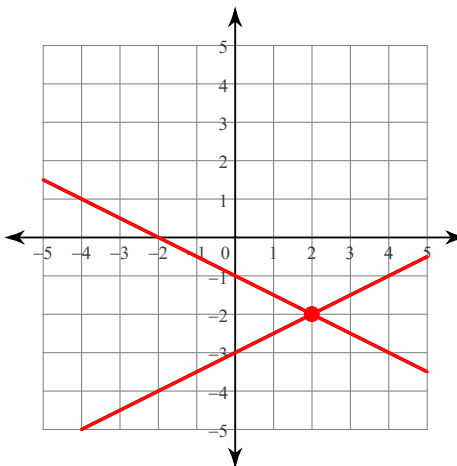
Solve each system by graphing.

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



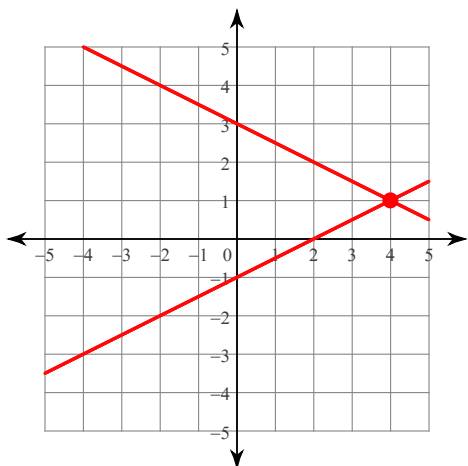
$(-2, 4)$

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



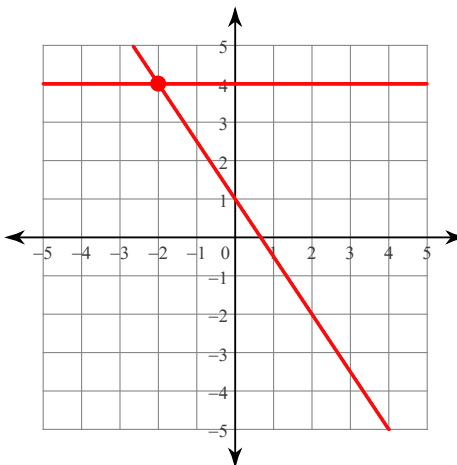
$(2, -2)$

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



$(4, 1)$

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



$(-2, 4)$

Solve each system by substitution.

$$5) \begin{aligned} 3x + 3y &= -12 \\ y &= -3x + 4 \end{aligned}$$

$(4, -8)$

$$6) \begin{aligned} 5x - 2y &= -3 \\ y &= 5x + 4 \end{aligned}$$

$(-1, -1)$

$$\begin{aligned} 7) \quad & y = 5x - 7 \\ & 2x - 2y = 14 \\ & (0, -7) \end{aligned}$$

$$\begin{aligned} 8) \quad & y = 5x + 11 \\ & 4x - 3y = -11 \\ & (-2, 1) \end{aligned}$$

$$\begin{aligned} 9) \quad & 4x + 2y = -24 \\ & y = x + 3 \\ & (-5, -2) \end{aligned}$$

**Solve each system by elimination.**

$$\begin{aligned} 10) \quad & -10x - 10y = 30 \\ & -5x - 7y = 17 \\ & (-2, -1) \end{aligned}$$

$$\begin{aligned} 11) \quad & -x + 6y = -14 \\ & 11x - 4y = 30 \\ & (2, -2) \end{aligned}$$

$$\begin{aligned} 12) \quad & -8x + 7y = -27 \\ & -3x + 14y = 24 \\ & (6, 3) \end{aligned}$$

$$\begin{aligned} 13) \quad & 10x - 5y = -30 \\ & -5x + 10y = -15 \\ & (-5, -4) \end{aligned}$$

$$\begin{aligned} 14) \quad & 7x - y = -21 \\ & 2x + 8y = -6 \\ & (-3, 0) \end{aligned}$$

- 15) Kali and Darryl are selling cookie dough for a school fundraiser. Customers can buy packages of white chocolate chip cookie dough and packages of double chocolate cookie dough. Kali sold 3 packages of white chocolate chip cookie dough and 1 package of double chocolate cookie dough for a total of \$55. Darryl sold 12 packages of white chocolate chip cookie dough and 14 packages of double chocolate cookie dough for a total of \$410. What is the cost each of one package of white chocolate chip cookie dough and one package of double chocolate cookie dough?

package of white chocolate chip cookie dough: \$12, package of double chocolate cookie dough: \$19

- 16) Kathryn and Imani are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Kathryn sold 1 roll of plain wrapping paper and 9 rolls of shiny wrapping paper for a total of \$151. Imani sold 10 rolls of plain wrapping paper and 7 rolls of shiny wrapping paper for a total of \$182. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

roll of plain wrapping paper: \$7, roll of shiny wrapping paper: \$16