# How to Graph Systems of Linear Equations Using the Intercepts?

- Identify the x-intercept and y-intercept of each equation in the system
- 2. Plot the intercepts of both equations on the same Cartesian plane.
- 3. Connect the x-intercept and y-intercept.

#### Practice Exercises 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} y = \frac{2}{3}x + 6 \\ y = -\frac{3}{2}x + 6 \end{cases}$$

$$\begin{cases} x+y = 7 \\ y-y = 1 \end{cases}$$

$$3. \begin{cases} 4x - y = 8 \\ 3x + 2y = 6 \end{cases}$$

$$4 \cdot \begin{cases} x + 4y = 8 \\ x - 2y = 2 \end{cases}$$

$$5. \quad \begin{cases} x+y=5\\ y=5x+\frac{1}{2} \end{cases}$$

### Activity 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} x+y = 12 \\ x-y = 8 \end{cases}$$

$$3. \begin{cases} 8 = x + y \\ -4 = x - y \end{cases}$$

$$4 \cdot \begin{cases} x+y = 3 \\ x+y = -2 \end{cases}$$

$$5 \cdot \begin{cases} x - 8y = 2 \\ 3x - 24y = 6 \end{cases}$$

## Lesson 1.8.1: Graphing Systems of Linear Equations

# How to Graph Systems of Linear Equations Using the Intercents?

- Identify the x-intercept and y-intercept of each equation in the system.
- Plot the intercepts of both equations on the same Cartesian plane.
- 3. Connect the x-intercept and y-intercept.

### Practice Exercises 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} y = \frac{2}{3}x + 6 \\ y = -\frac{3}{2}x + 6 \end{cases}$$

$$2. \begin{cases} x+y = 7 \\ x-y = 1 \end{cases}$$

$$3. \begin{cases} 4x - y = 6 \\ 3x + 2y = 6 \end{cases}$$

$$4 \cdot \begin{cases} x + 4y = 8 \\ x - 2y = 2 \end{cases}$$

$$5. \quad \begin{cases} x+y=5\\ y=5x+\frac{1}{2} \end{cases}$$

## Activity 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} x+y = 12 \\ x-y = 8 \end{cases}$$

$$2. \begin{cases} 3x + 6y = 4 \\ 6x + 12y = 8 \end{cases}$$

$$3. \begin{cases} 8 = x+y \\ -4 = x-y \end{cases}$$

$$4. \quad \begin{cases} x+y = 3 \\ x+y = -2 \end{cases}$$

5. 
$$\begin{cases} x - 8y = 2 \\ 3x - 24y = 6 \end{cases}$$

### Lesson 1.8.1: Graphing Systems of Linear Equations

# How to Graph Systems of Linear Equations Using the Intercepts?

- Identify the x-intercept and y-intercept of each equation in the system.
- 2. Plot the intercepts of both equations on the same Cartesian plane.
- 3. Connect the x-intercept and y-intercept.

### Practice Exercises 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} y = \frac{2}{3}x + 6 \\ y = -\frac{3}{2}x + 6 \end{cases}$$

$$2. \begin{cases} x+y = 7 \\ x-y = 1 \end{cases}$$

$$3. \begin{cases} 4x - y = 8 \\ 3x + 2y = 6 \end{cases}$$

$$4. \begin{cases} x+4y = 8 \\ x-2y = 2 \end{cases}$$

$$5. \quad \begin{cases} x+y=5\\ y=5x+\frac{1}{2} \end{cases}$$

### Activity 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} x+y = 12 \\ x-y = 8 \end{cases}$$

$$2. \begin{cases} 3x + 6y = 4 \\ 6x + 12y = 8 \end{cases}$$

$$3. \begin{cases} 8 = x+y \\ -4 = x-y \end{cases}$$

$$4. \quad \begin{cases} x+y = 3 \\ x+y = -3 \end{cases}$$

$$5. \begin{cases} x - 8y = 2 \\ 3x - 24y = 6 \end{cases}$$

## Lesson 1.8.1: Graphing Systems of Linear Equations

# How to Graph Systems of Linear Equations Using the Intercents?

- Identify the x-intercept and y-intercept of each equation in the system.
- Plot the intercepts of both equations on the same Cartesian plane.
- 3. Connect the x-intercept and y-intercept.

### Practice Exercises 1.8.1

Find the solutions of the following systems of linear equations graphically.

1. 
$$\begin{cases} y = \frac{2}{3}x + 6 \\ y = -\frac{3}{2}x + 6 \end{cases}$$

$$\begin{cases}
x+y &= 7 \\
x-y &= 1
\end{cases}$$

$$3. \begin{cases} 4x - y = 8 \\ 3x + 2y = 6 \end{cases}$$

$$4. \begin{cases} x + 4y = 8 \\ x - 2y = 2 \end{cases}$$

$$5. \quad \begin{cases} x+y=5\\ y=5x+\frac{1}{2} \end{cases}$$

### Activity 1.8.1

Find the solutions of the following systems of linear equations graphically.

$$1. \quad \begin{cases} x+y = 12 \\ x-y = 8 \end{cases}$$

$$2. \begin{cases} 3x + 6y = 2 \\ 6x + 12y = 8 \end{cases}$$

$$3. \begin{cases} 8 = x+y \\ -a = x-y \end{cases}$$

$$4. \begin{cases} x+y = 3 \\ x+y = -2 \end{cases}$$

$$5. \begin{cases} x - 8y = 2 \\ 3x - 24y = 6 \end{cases}$$