

# 7.4

## **Writing Equations in Two Variables**

# **Important Vocabulary!**

**Independent –  
Variable**

**The variable representing a  
quantity that can change**

\_\_\_\_\_ .

**Dependent –  
Variable**

**The variable in which the value  
\_\_\_\_\_ on the  
independent value.**

# Equations in Two Variables

The following is an equation in two variables.

Complete the table on the right,  
if  $x = -4, -2, 0, 2, 4$

$$y = x + 4$$

**Solution**

$x$	$y$

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# Equations in Two Variables

The following is an equation in two variables.

Complete the table on the right,  
if  $x = -2, -1, 0, 1, 2$

$$y = 2x - 3$$

$x$	$y$

**Solution**

# **Identifying Solutions of Eq. in Two Variables**

**Tell whether the ordered pair is a solution of the equation.**

1)  $y = 2x$  ;  $(3, 6)$

## **Identifying Solutions of Eq. in Two Variables**

**Tell whether the ordered pair is a solution of the equation.**

$$2) \ y = 4x - 3 ; (4, 12)$$

## Practice

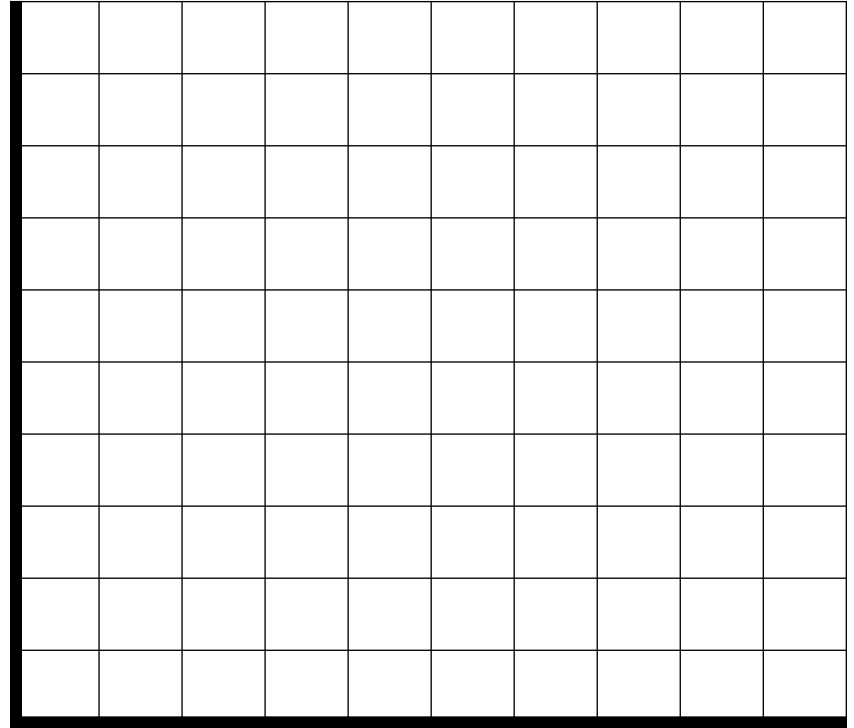
**Tell whether the ordered pair is a solution of the equation.**

3)  $y = 5x + 1$  ;  $(3, 16)$       4)  $y = -3x + 5$  ;  $(4, -6)$

# Graphing a Two-Variable Equation

3)  $y = x + 2$

a) Make a T-chart of values.

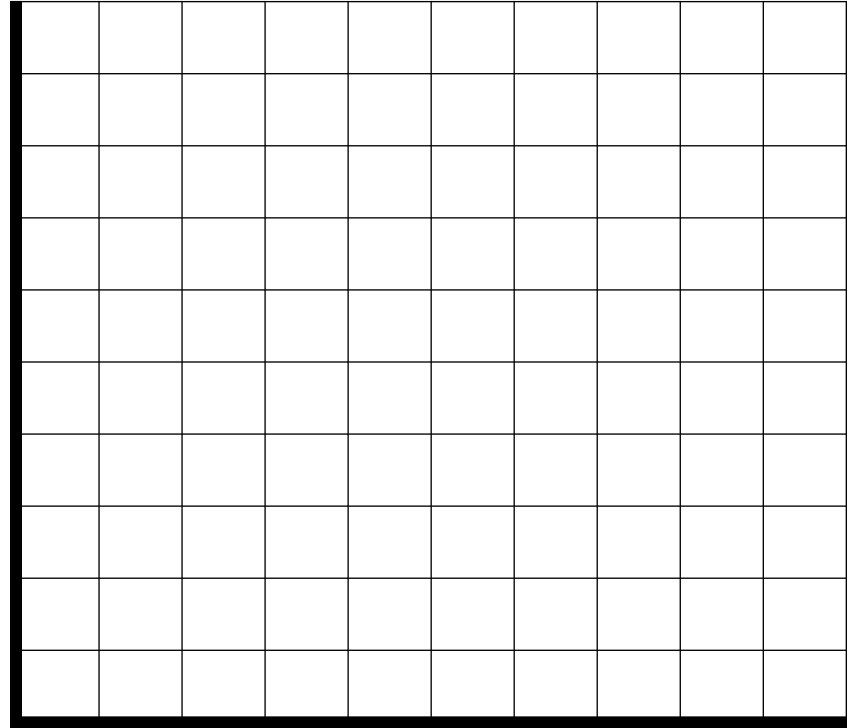


b) Graph the solutions.

# Graphing a Two-Variable Equation

4)  $y = 2x + 1$

a) Make a T-chart of values.



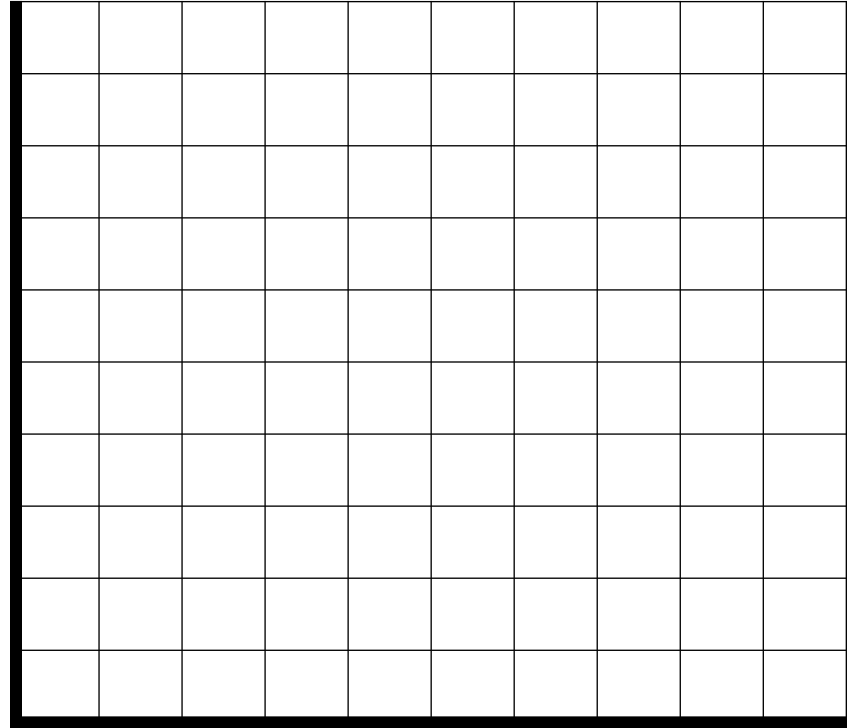
b) Graph the solutions.

# Exploring



5) The cost of  $y$  (in dollars) of taking a taxi  $x$  miles is  $y = 3x + 2$ .

a) Make a T-chart of values.



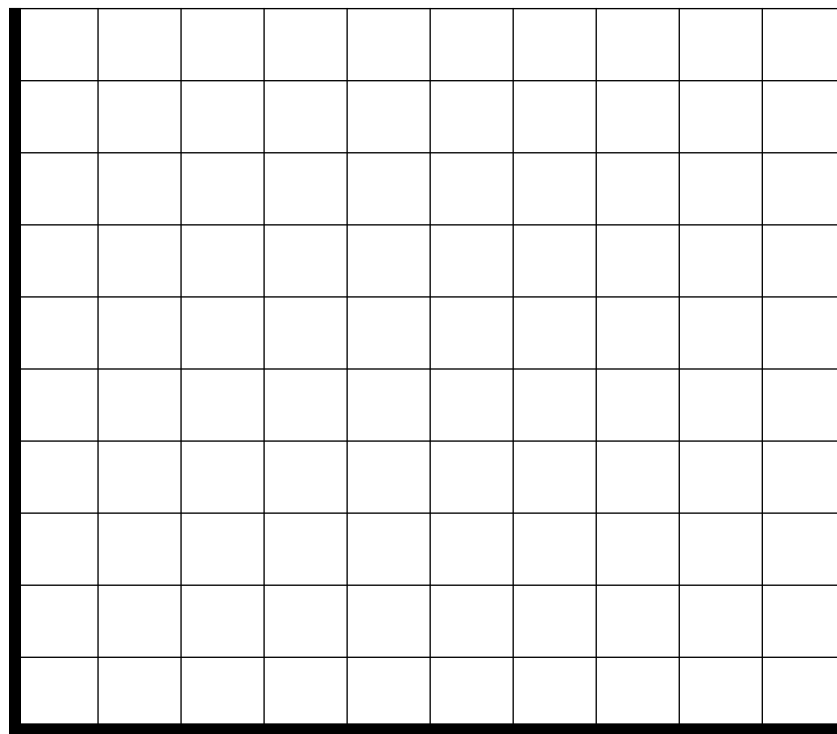
b) Graph the solutions.

# Application

6) For babysitting, Nicole charges a flat fee of \$4, plus \$5 per hour. Write an equation for the cost,  $y$ , after  $x$  hours of babysitting.

a) Write an equation that represents this.

b) Make a T-chart of values.



c) Graph the solutions.