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 = 0, 1, 2, 3, 4

$$y = x + 4$$

x	y

Solution

Equations in Two Variables

The following is an equation in two variables.

Complete the table on the right, if x = 0, 1, 2, 3, 4

$$y = 2x - 3$$

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.

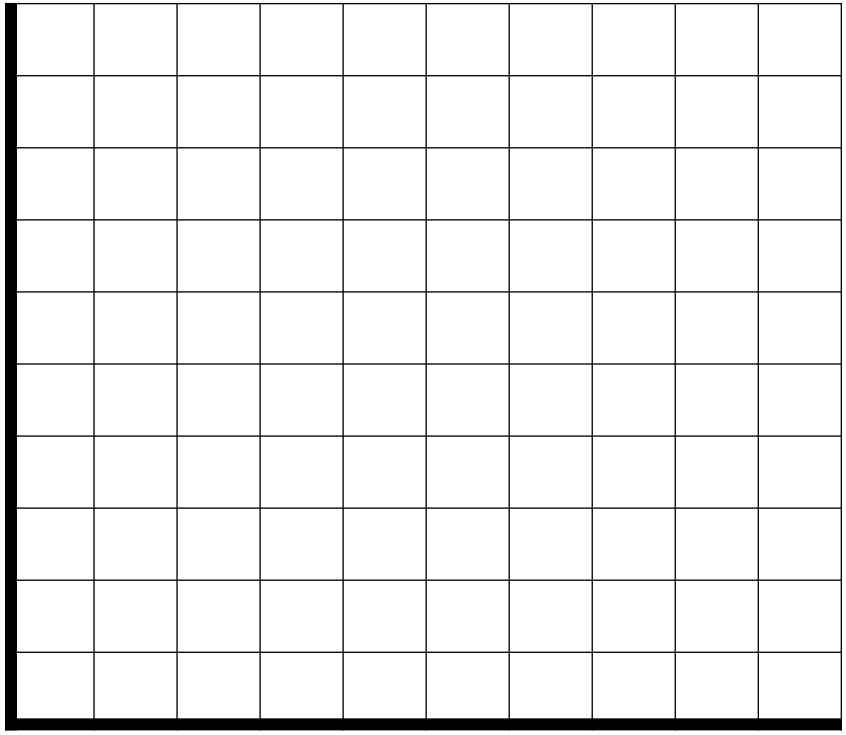
3) $y = 5x + 1$; $(3,16)$

4) $y = 3x + 5$; $(7,24)$

Graphing a Two-Variable Equation

3) $y = x + 2$

a) Make a T-chart of values.

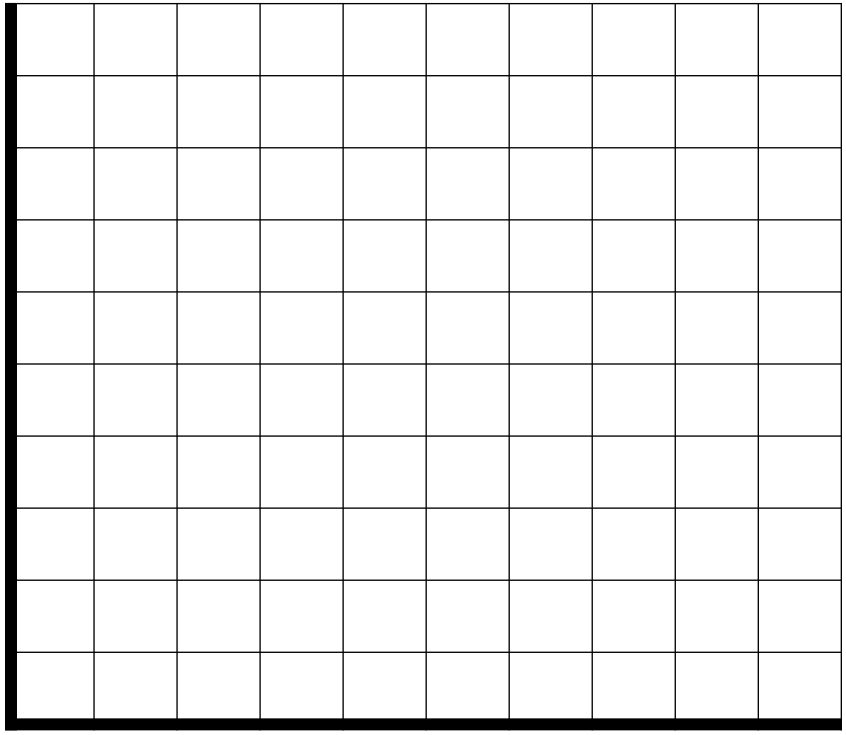


b) Graph the solutions.

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.

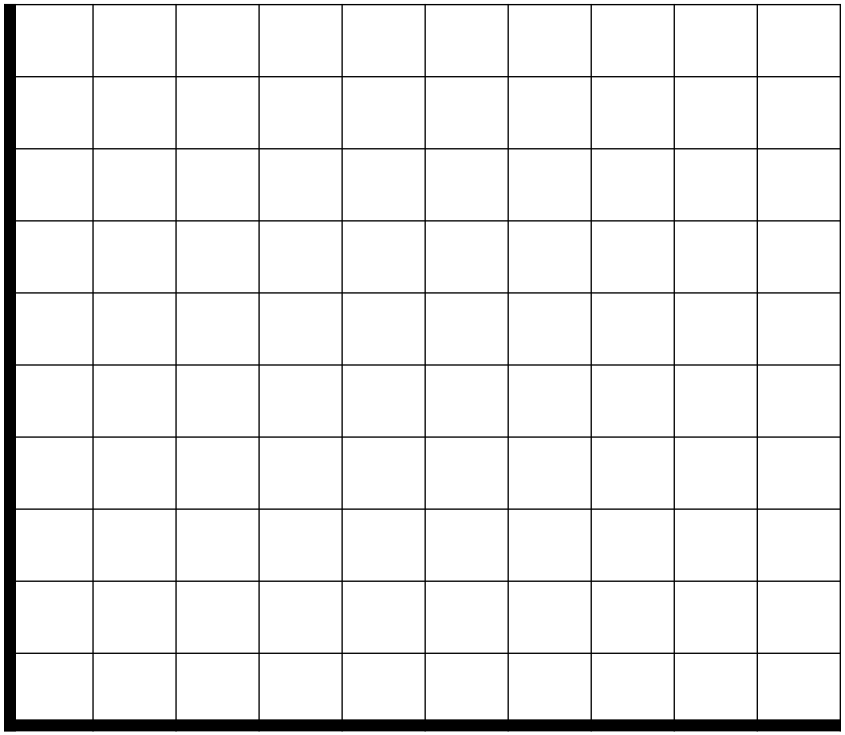
b) Graph the solutions.

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.