

Section P.2 Graphs of Equations

Objective: In this lesson you learned how to sketch graphs of equations by point plotting or using a graphing utility.

Course Number

Instructor

Date

Important Vocabulary

Define each term or concept.

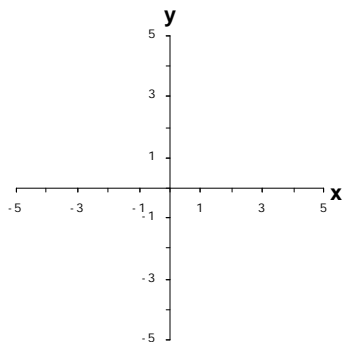
Solution point**Graph of an equation****Intercepts****I. The Graph of an Equation** (Pages 14–15)

To sketch the graph of an equation by point plotting, . . .

What you should learn
How to sketch graphs of equations by point plotting

Example 1: Complete the table for the equation $y = 3 - 0.5x$. Then use point plotting to sketch the graph of the equation.

x	-4	-2	0	2	4
y					



II. Using a Graphing Utility (Pages 16–19)

A disadvantage of the point-plotting method is . . .

What you should learn
How to sketch graphs of equations using a graphing utility

To graph an equation involving x and y on a graphing utility, . . .

Example 2: Use a graphing utility to graph the equation $12x^2 + 4y = 5$ in a standard viewing window.

A square setting is . . .

A square setting is useful when using a graphing utility to graph . . .

Example 3: Describe how to use a graphing utility to graph $3x^2 + 3y^2 = 75$. Then graph the equation in a square viewing window.

List and describe three common approaches to solving a problem.

- 1)
- 2)
- 3)

III. Applications of Graphs of Equations (Pages 19–20)

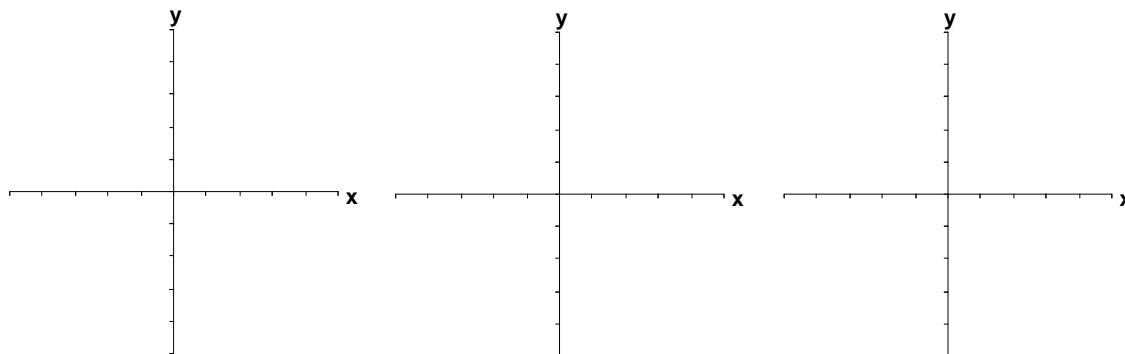
Describe a real-life situation in which a graphical solution approach would be helpful.

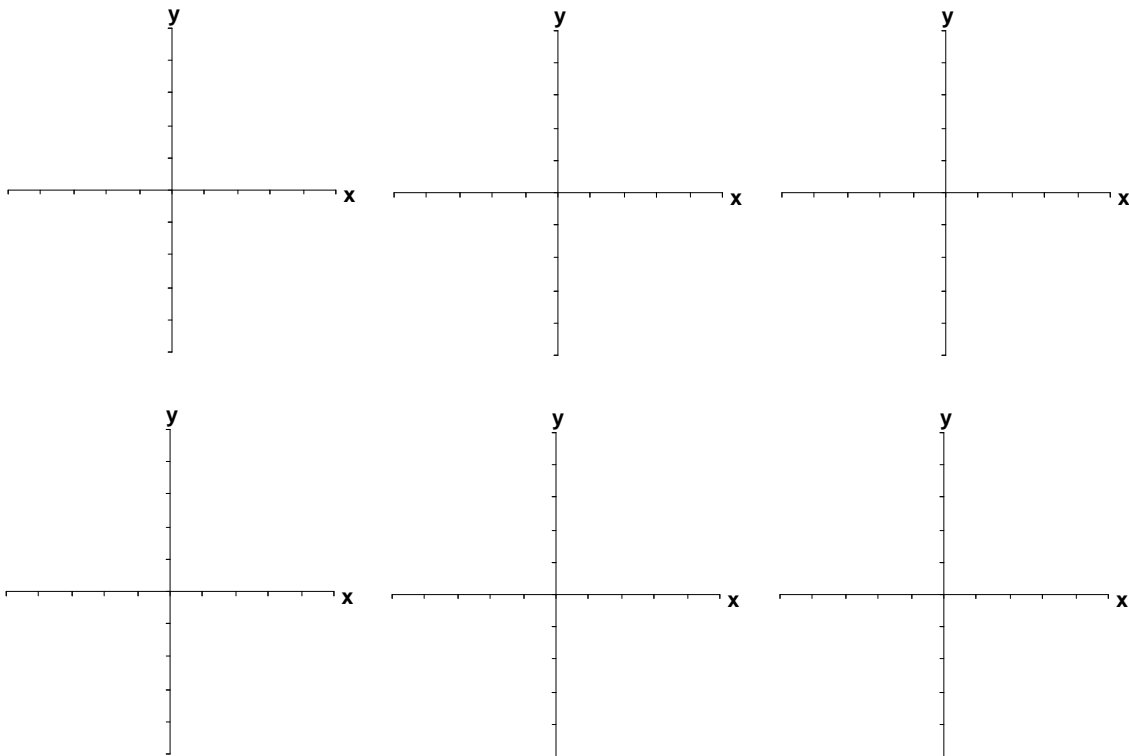
What you should learn

How to use graphs of equations in real-life problems

Example 4: Suppose a toy company estimates that its top-selling toy sells 240 units per minute, on average, nationally during the holiday shopping season, or according to the equation $S = 240m$, where S is the number of units sold and m is the number of minutes. Explain how a graphing utility could be used to find how long it takes during the holiday shopping season to sell 82,800 units.

Additional notes



Additional notes**Homework Assignment**

Page(s)

Exercises