Course Number

Instructor

Date

Section 6.4 Systems of Inequalities

Objective: In this lesson you learned how to sketch the graphs of inequalities in two variables and to solve systems of inequalities and how to use systems of inequalities to model and solve real-life problems.

Important Vocabulary Define each term or concept.

Solution of an inequality

Graph of an inequality

Linear inequalities

Solution of a system of inequalities

Consumer surplus

Producer surplus

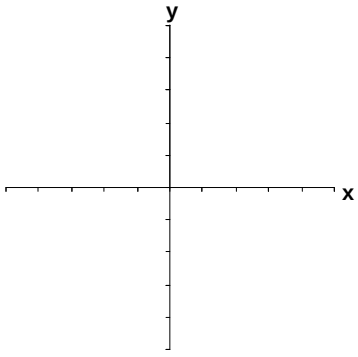
I. The Graph of an Inequality (Pages 480–481)

What you should learn
How to sketch the graphs of inequalities in two variables

To sketch the graph of an inequality in two variables, . . .

The solution points for the inequality $y < 3x + 5$ lie _____ the line $y = 3x + 5$.

Example 1: Sketch the graph of the linear inequality $y \geq 2$.



II. Systems of Inequalities (Pages 482–484)

What you should learn
How to solve systems of inequalities

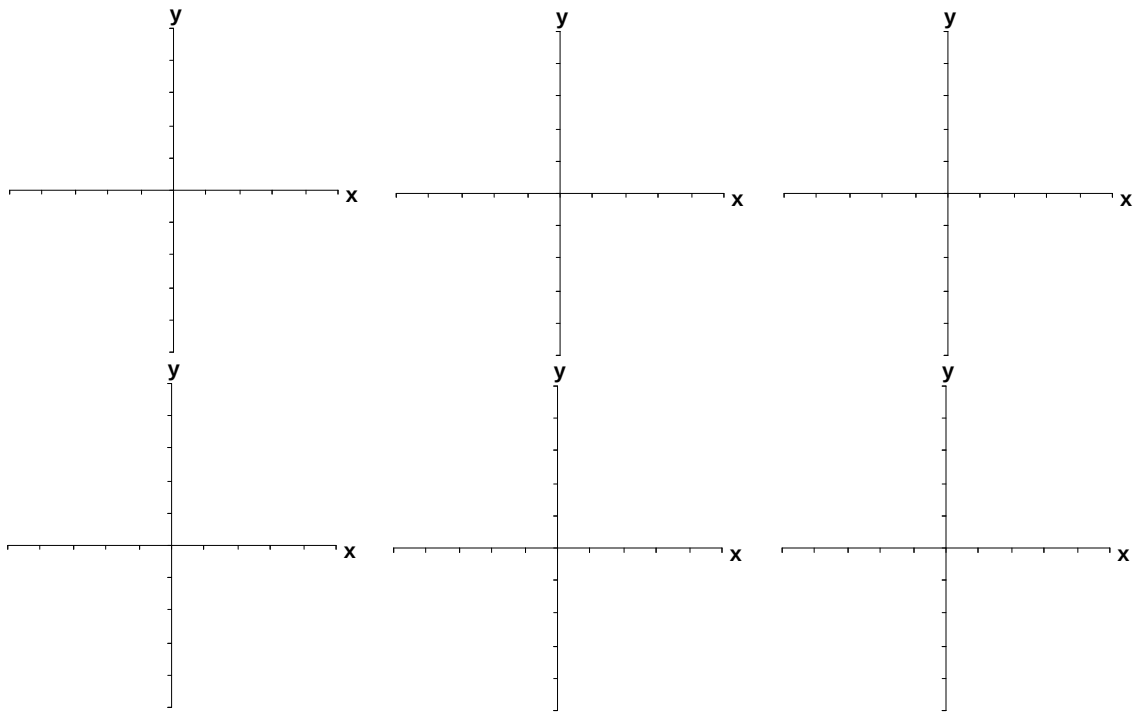
To sketch the graph of a system of inequalities in two variables, . . .

To find the vertices of the solution region for a system of three linear inequalities, . . .

III. Applications of Systems of Inequalities (Pages 485–486)

What you should learn
How to use systems of inequalities in two variables to model and solve real-life problems

The consumer surplus is a measure of the amount that consumers would have been willing to pay _____ _____. Producer surplus is a measure of the amount that producers would have been willing to receive _____.



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