

Picturing Cookies—Part II

You have already graphed each of the constraints from the unit problem on its own set of axes. Each graph gave you a picture of what that constraint means.

Now you need to see how to combine these constraints to get one picture of all of them together.

1. Begin with one of the constraints that you worked on before. Using a colored pencil, color the set of points that satisfy this constraint. (Note: Unlike your work on *Picturing Cookies—Part I*, you should *not* color the points that fail to satisfy the constraint.)
2. Now choose a second constraint from the problem.
 - a. On the *same set of axes*, but using a *different color*, color the set of points that satisfy this new constraint.
 - b. Using your work so far, identify those points that satisfy *both* your new constraint and the constraint used in Question 1.
3. Continue with the other constraints, using the same set of axes. Use a new color for each new constraint.
 - a. Color the set of points that satisfy each new constraint.
 - b. After graphing each new constraint, identify those points that satisfy all the constraints graphed so far.
4. When you have finished graphing all the constraints, look at your overall work. Make a single new graph that shows the set of all those points that represent possible combinations of the two types of cookies the Woos can make. In your graph, show all of the lines that come from the constraints, labeled with their equations.

