1. Suppose a manufacturer produces 2 models of tablet screens. A deluxe 13 inch model and a standard 10.1 inch model. The standard screen requires 12 h of labour and the deluxe requires 18 h. There are 360 h of available labour each week. As well the plant is only capable of storing 25 models each week.
   1. Write a system of inequalities to represent the situation.
   2. Graph this situation.



* 1. If the manufacturer makes a $100 profit on the deluxe model and a $150 profit on the standard model, how many of each tablet screen should they make to maximize their profit?
  2. What will their maximum profit be?

1. A manufacturer produces both two-slice and four-slice toasters. Two-slice toasters require 6 h or labour while four-slicers require 10 hours of labour. The plant has a production capacity of 40 toasters per week and 300 h a week of labour available. The plant also requires that a minimum of 20, two-slice toasters be produced each week.
   1. Write a system of inequalities to represent the situation.
   2. Graph this situation.



* 1. If a two-slice toaster sells for $30 and a four-slice toaster sells for $40, how many of each type of toaster should they make to maximize sales?
  2. What would their maximum sales be?