

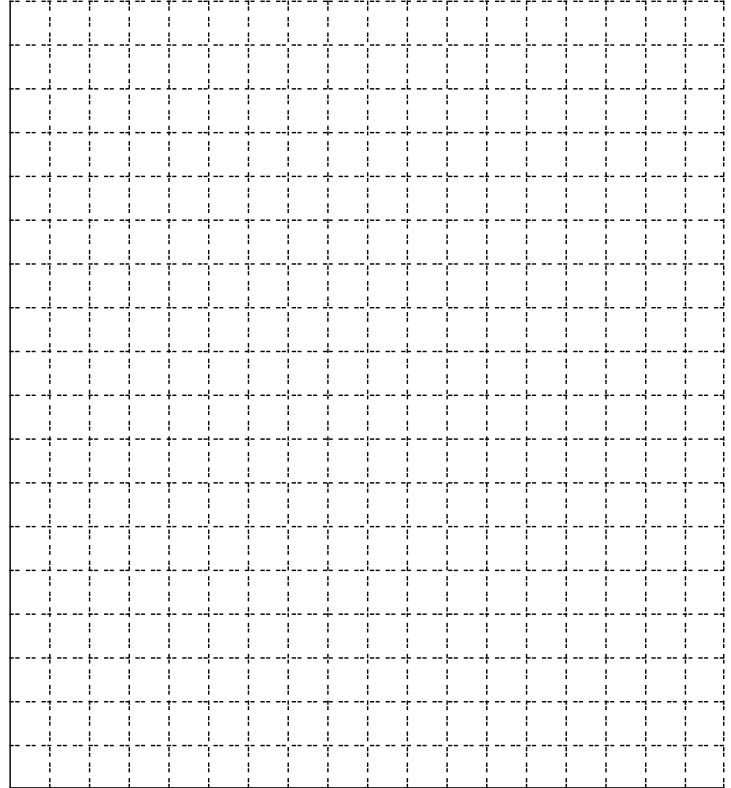
Algebra Plus  
Linear Programming Quiz

Name \_\_\_\_\_

1. Find the minimum and maximum values of the objective quantity. Sketch the graph.

Objective Quantity:  $F = 5x + 3y$

$$\text{Constraints: } \begin{cases} x \geq 2 \\ y \geq 0 \\ 3x + 2y \geq 24 \\ x + 3y \geq 15 \end{cases}$$

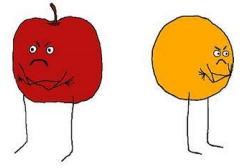


2. Ms. King has only 10 acres to plant in apples and oranges. With the apple seed she has from last year, she wants to save money and decides to plant at least 2 acres of apple seed. Moreover, Ms. King has to get the planting done in 12 hours and it takes an hour to plant an acre of apples and 2 hours to plant an acre of oranges. If the profit is \$500 per acre of apples and \$300 per acre of oranges how many acres of each should be planted to maximize profits?

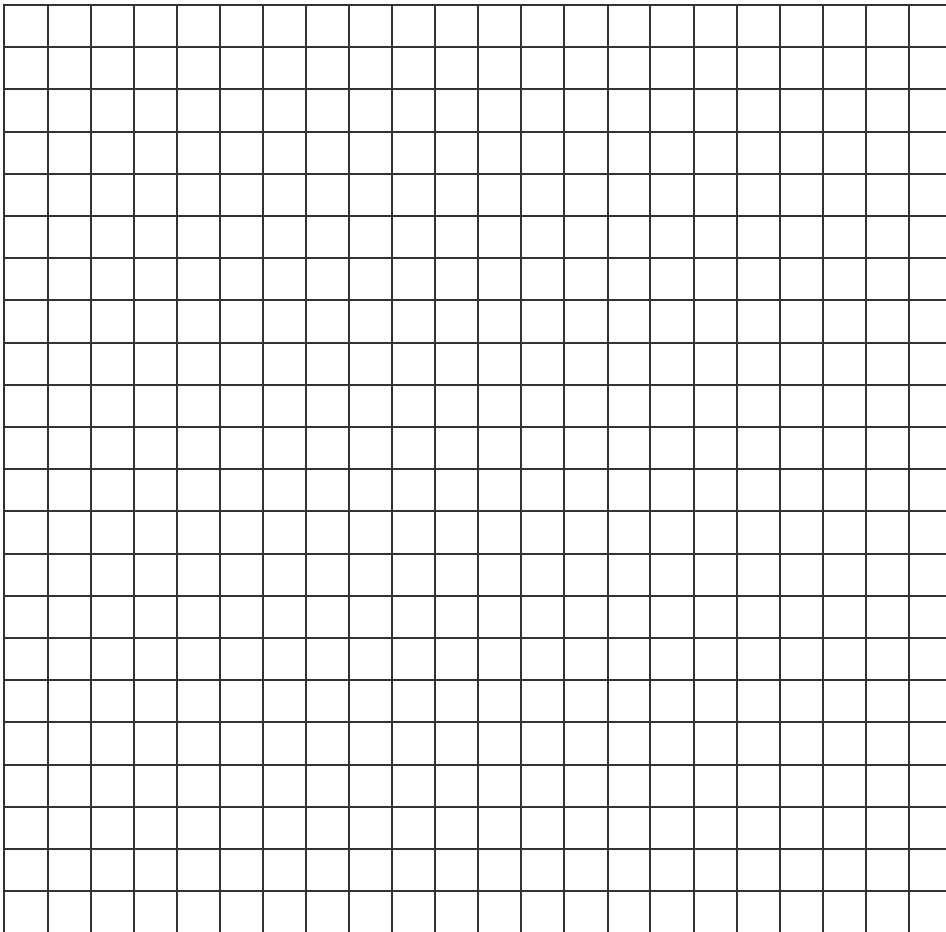
Define your variables

Determine the objective quantity

List the constraints



Graph



Answer Question \_\_\_\_\_