Name:

Applications of Systems – Practice #1

1.) The cost of admission to the Spring Carnival was $39 for a group of 8 children and 3 adults. The admission was $43 for another group of 11 children and 2 adults.

a) Let x =
Let y =

b) Write your system:

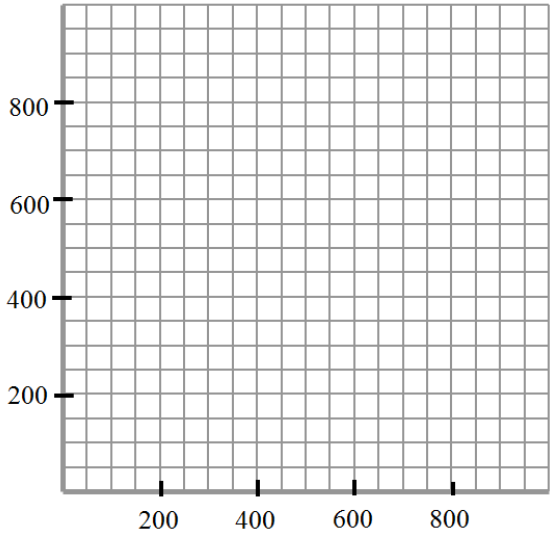
c) Solve your system from above.

d) Using a full sentence, interpret what your answer means.

2.) An auditorium has a seating capacity of 500. For the school play an adult ticket costs $8 and a student ticket costs $4. The school wants to make at least $2,400 to cover the expenses incurred to produce the play.

a) Write a system of linear inequalities that where *x* is the number of adult tickets sold and *y* is the number of student tickets sold.

b) Graph the solution. Be sure to label your axes.



c) Using a full sentence, give one possible combination of tickets that could be sold to reach the goal.