

## Classwork 11.4 Systems: Word problems and Linear Inequalities

1. Seniors in two high schools are planning a trip.

The senior class at High School A rented and filled 8 vans and 8 buses with 240 students. High School B rented and filled 4 vans and 1 bus with 54 students.

Every van had the same number of students in it as did the buses. Find the number of students in each van and in each bus.

2. Brenda's school is selling tickets to a spring musical.

On the first day of ticket sales the school sold 3 senior citizen tickets and 9 child tickets for a total of \$39. The school took in \$47 on the second day by selling 8 senior citizen tickets and 5 child tickets. What is the price each of one senior citizen ticket and one child ticket?

Solve the following system of linear inequalities:

3.  $x < 2$

$$y \geq -3$$

$$x > -1$$

4.  $y > 3x - 1$

$$y < \frac{1}{2}x - 2$$

5.  $x + y \geq 2$

$$4x - 3y \leq 12$$

6.  $y \leq -\frac{1}{3}x + 1$

$$-3x + 2y > 6$$