Writing Systems of Equations Part 2 Assignment

Write a system of equations for each situation. Make sure to define your variables.
Solve the systems in any way you choose.

1. The perimeter of a rectangular rug is 42 feet. The length is 3 feet more than the width.
Find the length and the width.
a) Define your variables:

b) Write the system:

c) Solve the system and tell what your answers mean.

2. Jack's school is selling tickets to a fall musical. On the first day of ticket sales the
school sold 4 senior citizen tickets and 7 child tickets for a total of $133. The school took
in $73 on the second day by selling 4 senior citizen tickets and 3 child tickets. Find the
price of a senior citizen ticket and the price of a child ticket.
a) Define your variables:

b) Write the system:

c) Solve the system and tell what your answers mean.

3. Two angles are complementary. One angle is 42° more than one-half the other.
(Complementary angles are two angles whose sum is 90°.) What are the measures of the two
angles?
a) Define your variables:

b) Write the system:

c) Solve the system and tell what your answers mean.

4. Morgan and Dylan each improved their yards by planning rose bushes and shrubs. They bought their supplies from the same store. Morgan spent $42 on 3 rose bushes and 3 shrubs. Dylan spent $54 on 7 rose bushes and 3 shrubs. What are the costs of one rose bush and the cost of one shrub?

a) Define your variables:

b) Write the system:

c) Solve the system and tell what your answers mean.

5. Savannah spent $131 on shirts and jeans. Jeans cost $28 and shirts cost $15. If she bought a total of 7 items, how many of each kind did she buy?

a) Define your variables:

b) Write the system:

c) Solve the system and tell what your answers mean.

6. A class of 195 students went on a field trip. They took 7 vehicles, some cars and some buses. Find the number of cars and the number of buses they took if each car holds 5 students and each bus holds 45 students.

a) Define your variables:

b) Write the system:

c) Solve the system and tell what your answers mean.