

# Word Problems: Systems of Equations

Date \_\_\_\_\_ Period \_\_\_\_\_

**For each problem, write a system of equations and solve using the appropriate method. Don't forget to define your variables and answer the problem with a sentence.**

- 1) The sum of two numbers is 20. Their difference is 4. Find the numbers.
- 2) The school that Mary goes to is selling tickets to a play. On the first day of ticket sales the school sold 9 adult tickets and 3 child tickets for a total of \$120. The school took in \$195 on the second day by selling 13 adult tickets and 6 child tickets. Find the price of an adult ticket and the price of a child ticket.
- 3) Julio and Bill each improved their yards by planting rose bushes and ornamental grass. They bought their supplies from the same store. Julio spent \$159 on 9 rose bushes and 12 bunches of ornamental grass. Bill spent \$115 on 9 rose bushes and 8 bunches of ornamental grass. What is the cost of one rose bush and the cost of one bunch of ornamental grass?

- 4) The school that Julia goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 1 senior citizen ticket and 7 child tickets for a total of \$39.40. The school took in \$116.70 on the second day by selling 10 senior citizen tickets and 11 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.
- 5) The school that Daniel goes to is selling tickets to a fall musical. On the first day of ticket sales the school sold 14 adult tickets and 11 child tickets for a total of \$340.50. The school took in \$126.50 on the second day by selling 7 adult tickets and 2 child tickets. Find the price of an adult ticket and the price of a child ticket.
- 6) The difference of two numbers is 4. Their sum is 22. What are the numbers?

## Answers to Word Problems: Systems of Equations (ID: 1)

- 1) 8 and 12
- 2) adult ticket: \$9, child ticket: \$13
- 3) rose bush: \$3, bunch of ornamental grass: \$11
- 4) senior citizen ticket: \$6.50, child ticket: \$4.70
- 5) adult ticket: \$14.50, child ticket: \$12.50
- 6) 9 and 13