**CCM8 Systems of Equations: Writing Equations and Solving With Substitution Part 2**

When solving a system of equations, it is often helpful to write equations that can model the situations and then use a method called substitution to solve the system of equations. If one of the equations is solved for a variable, you can substitute that equation into the other equation and solve the system.

Examples

Solve each system algebraically.

1. Rachel is twice as old as Sarah. The sum of Rachel and Sarah’s ages is equal to 48. How old are Sarah and Rachel?
2. Scott buys five more apples than he does oranges. If Scott bought a total of 13 apples and oranges, how many apples did Scott buy?

**Independent Practice**

Solve each system algebraically.

1. Ross is half as old as Kristen. The difference in Kristen and Ross’ ages is 12. How old are Ross and Kristen?
2. Phillip bought three times more candy than soda when he went to the store. He bought a total of 12 items at the store. Some of those items were pieces of candy and the rest of the items were sodas. How many pieces of candy and how many sodas did Phillip buy at the store?