



## Example

### Solve the problem.

Rebecca bought 3 pizzas and one gallon of milk for \$12. Ricky bought 2 pizzas and one gallon of milk for \$9. What is the cost of each pizza and gallon of milk?

Set up a system of equations to represent the problem. Let  $x$  represent the cost of a pizza and let  $y$  represent the cost of a gallon of milk.

$$3x + y = 12$$

$$2x + y = 9$$

Use any method, such as subtraction, to solve the system.

$$x = 3 \quad \text{Subtract the second equation from the first.}$$

$$2(3) + y = 9 \quad \text{Substitute } x = 3 \text{ into the second equation.}$$

$$y = 9 - 6 = 3 \quad \text{Solve and simplify.}$$

The solution is  $(3, 3)$  or **\$3 for the pizza and \$3 for the milk.**

### Solve.

- 1 Carla purchased one eyeliner and three nail polishes for \$15. Natalie purchased seven eyeliners and one nail polish for \$45. How much is one eyeliner and one nail polish?
- 2 The admission price at a fair is \$2 for children and \$22 for adults. On Sunday, 20 people enter the fair and \$280 is collected. How many children and how many adults attended?
- 3 Brenda spent \$39 on 8 juice boxes and 15 cases of water. The next day, she purchased an additional 8 juice boxes and 5 cases of water. She spent \$29. What is the cost of each juice and water case?
- 4 Ten comic books and five snacks cost \$250. Five comic books and 1 snack costs \$80. How much is each comic book and snack?
- 5 Six pounds of flour and four cups of sugar make 60 cookies. Six pounds of flour and 16 cups of sugar make 114 cookies. How much flour and sugar is needed for each cookie?
- 6 One pair of goggles and 2 pairs of flippers cost \$22. Two pairs of goggles and 2 pairs of flippers cost \$28. How much does each item cost?



- 7 A lunch costs \$28 for 4 tacos and 2 drinks. A different lunch of 4 tacos and 6 drinks costs \$48. What is the cost of each taco and drink?
- 8 At a restaurant one family ordered three adult dinners and two kids dinners for \$35. Another table ordered seven adult dinners and three kids dinners for \$75. How much does each meal cost?
- 9 Chase mowed one lawn and ran two errands in three hours on Saturday. One Sunday he mowed three lawns and ran two errands in seven hours. How long does each task take?
- 10 Two hamburgers and one cup of water costs \$24. Four hamburgers and 12 cups of water cost \$48. How much does a hamburger and cup of water cost?
- 11 A collection of 5-dollar bills and 20-dollar bills is worth \$515. If there are a total of 28 bills, how many of each kind of bill are in the collection?
- 12 Sila made three batches of cupcakes and two batches of cookies with 9 eggs. The next day she baked three batches of cupcakes and four batches of cookies with 15 eggs. How many eggs did she use for a batch of each dessert?

Tip

Remember, you may use addition, subtraction, or elimination to solve each problem.



A	B	C	D	E	F
(2, 0.5)	(3, 1)	(6, 8)	(8, 12)	(6, 3)	(10, 30)
(7, 4.5)	(3, 25)	(1, 3)	(9, 4)	(4.5, 5)	(12, 0)
G	H	I	J	K	L

**Objective:** Solve a real-world problem by writing and solving a system of equations.

