# Math on the Fly!

NAME: _____     DATE: _____

## Systems of Equations Word Problems

### Solve each word problem.

**1.** There are quarters and dimes in a jar. If there are 45 coins in the jar, and the total value of the coins is $9.00, how many quarters are in the jar? How many dimes are in the jar?

**2.** Two numbers have a sum of 100.
The difference of the two numbers is 28.
What are the two numbers?

**3.** At a bake sale, cookies and brownies are being sold. Six cookies and four brownies cost $8.30. Three cookies and five brownies cost $7.90. What is the cost of a brownie? What is the cost of a cookie?

**4.** There are chickens and horses outside in a field.
Altogether, there were 26 animals, and 70 legs were counted.
How many animals were chickens? How many animals were horses?

**5.** Child and adult tickets are being sold for a movie. A child's ticket costs $3 and an adult ticket costs $7. Sixty tickets were purchased, and the total value of the tickets sold were $316. How many of each type of ticket was purchased?

**6.** Sam and Lisa are cousins. Sam's age plus three times Lisa's age is 84.
Three times Sam's age minus two times Lisa's age is 10.
What are the ages of Sam and Lisa?

**7.** A rectangle has a perimeter of a rectangle is 64 inches.
The length of the rectangle is five more than twice the width of the rectangle.
What are the length and width of the rectangle?

**8.** Two lines intersect each other at a point. The first line has a slope of 3 and a y–intercept of –8. The second line has a slope of –2 and a y–intercept of 7. What are the (x,y) coordinates of their point of intersection?

# SOLUTIONS

**1.**
Q + D = 45
0.25Q + 0.10D = 9.00

30 Quarters
15 Dimes

**2.**
x + y = 100
x – y = 28

The numbers are
64 and 36

**3.**
6C + 4B = 8.30
3C + 5B = 7.90

Cookie is $0.55 each
Brownie is $1.25 each

**4.**
C + H = 26
2C + 4H = 70

17 Chickens
9 Horses

**5.**
C + A = 60
3C + 7A = 316

26 Child Tickets
34 Adult Tickets

**6.**
S + 3L = 84
3S – 2L = 10

Sam is 18 years old
Lisa is 22 years old

**7.**
2L + 2W = 64
L = 2W + 5

Width is 9 inches
Length is 23 inches

**8.**
y = 3x – 8
y = –2x + 7

x = 3 and y = 1
Intersection is (3,1)