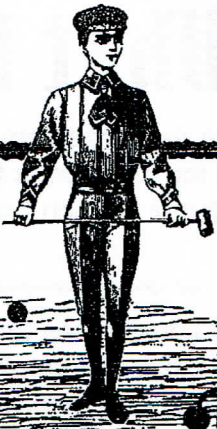# Why Are There Rules in Croquet?

Solve each problem below using a system of two equations in two variables. Find the solution in the answer column and notice the three letters next to it. Write these letters in the three boxes at the bottom of the page that contain the number of that exercise.

① The sum of two numbers is 90. Their difference is 18. Find the numbers.

② The second of two numbers is 4 more than the first. The sum of the numbers is 56. Find the numbers.

③ The number of girls at Sky High School is 60 greater than the number of boys. If there are 1250 students all together, how many girls are there?

④ The second of two numbers is 5 more than twice the first. The sum of the numbers is 44. Find the numbers.

⑤ The sum of two numbers is 75. The second number is 3 less than twice the first. Find the numbers.

⑥ The larger of two numbers is 8 more than four times the smaller. If the larger is increased by four times the smaller, the result is 40. Find the numbers.

⑦ The number of calories in a piece of pie is 20 less than three times the number of calories in a scoop of ice cream. The pie and ice cream together have 500 calories. How many calories are in each?

⑧ The sum of two numbers is 4 less than twice the larger. If the larger is decreased by three times the smaller, the result is −20. Find the numbers.

660	THE
655	WEC
38, 52	BEC
16, 12	DER
24, 4	LAW
36, 54	SOT
635	ITW
16, 28	ROQ
13, 31	ANH
24, 32	HER
370, 130	NOR
26, 30	HAT
36, 39	ITB
350, 150	YER
26, 49	AVE

1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8

OBJECTIVE 6–e: To solve word problems using systems of equations.

What Kind of Monkey Can Fly?

Solve each problem below using a system of two equations in two variables. Find the solution in the answer column and notice the letter next to it. Write this letter in each box that contains the number of that exercise.

① Three times the larger of two numbers is equal to four times the smaller. The sum of the numbers is 21. Find the numbers.

② The difference between two numbers is 16. Five times the smaller is the same as 8 less than twice the larger. Find the numbers.

③ The larger of two numbers is 1 more than twice the smaller. The sum of the numbers is 20 less than three times the larger. Find the numbers.

④ Two records and three tapes cost $31. Three records and two tapes cost $29. Find the cost of each record and each tape.

⑤ The sum of two numbers is the same as four times the smaller number. If twice the larger is decreased by the smaller, the result is 30. Find the numbers.

⑥ A group of students go out for lunch. If two have hamburgers and five have hot dogs, the bill will be $8.00. If five have hamburgers and two have hot dogs, the bill will be $9.50. What is the price of a hamburger?

⑦ The price of a sweater is $5 less than twice the price of a shirt. If four sweaters and three shirts cost $200, find the price of each shirt and each sweater.

⑧ A shipment of TV sets, some weighing 30 kg each and the others weighing 50 kg each, has a total weight of 880 kg. If there are 20 TV sets all together, how many weigh 50 kg?

Answer column

- (S) 22, 6
- (K) 16, 9
- (R) 18, 6
- (M) 11, 10
- (B) $20, $35
- (I) 12, 9
- (P) $1.35
- (N) 13, 6
- (O) 14
- (T) $1.50
- (L) $8, $5
- (A) 24, 8
- (D) $23, $41
- (H) $5, $7
- (E) 17

2	4	8	6	2	1	5	7	2	7	8	8	3

OBJECTIVE 6–h: To solve word problems using systems of equations.