

Chapter 7 Puzzle

Dancing Variables

Contestants x and y entered a dance contest.
Why was y disappointed with his results?

To find out:

On a separate sheet of paper, determine the solution of each linear system.
Match each system to its solution at the right. Write the corresponding letter
above the question number in the answer below.

Question	System
1	$x + y = 3$ $x - y = 1$
2	$3x + y = 1$ $6x - 2y = -2$
3	$2x - y = -3$ $x + y = 0$
4	$2x + y = -6$ $x + y = -4$
5	$2x + y = 4$ $x + y = 4$
6	$2x - y = 6$ $-x - y = -12$
7	$8x - 4y = 4$ $-5x + y = 2$
8	$-x - y = -3$ $2x + y = 6$
9	$-2x - y = 9$ $x + y = -5$
10	$-5x + y = -4$ $6x - 2y = 4$
11	$-4x + y = -10$ $-x + y = -1$

Solution	Letter
$x = -2; y = -2$	M
$x = 6; y = 6$	W
$x = -1; y = -3$	A
$x = 0; y = 4$	E
$x = 0; y = 1$	L
$x = -4; y = -1$	I
$x = 2; y = 1$	H
$x = -1; y = 1$	N
$x = 1; y = 1$	T
$x = 3; y = 2$	D
$x = 3; y = 0$	S

Answer:

1	5	6	7	8	5	2	9	4	9	3	7	10	5	11