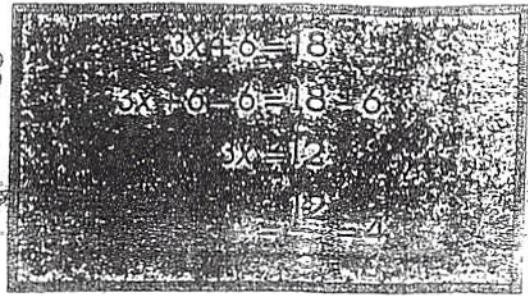


# Key

## Solving Two-Step Equations with Integers



### Tip

"Undo" all operations by performing the opposite operation.

Solve the equations. Write the answers in the cross-number puzzle.

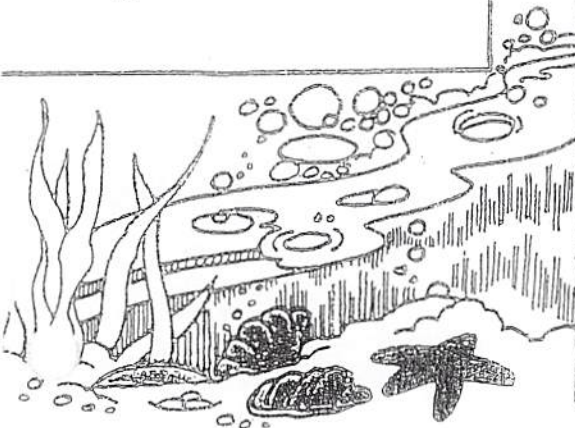
### Across

1.  $3x - 9 = -12$
2.  $-5x - 2 = -107$
3.  $7x + 9 = 16$
4.  $\frac{-x}{2} - 3 = 5$
5.  $3x - 1 = -13$
6.  $\frac{x}{4} - 2 = -10$
7.  $42 - 2x = 82$
8.  $3x + 3 = 6$
9.  $-10x - 40 = -50$
10.  $-9x - 12 = 177$
11.  $\frac{x}{12} - 4 = 20$

### Down

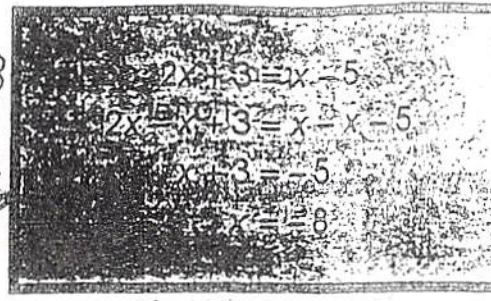
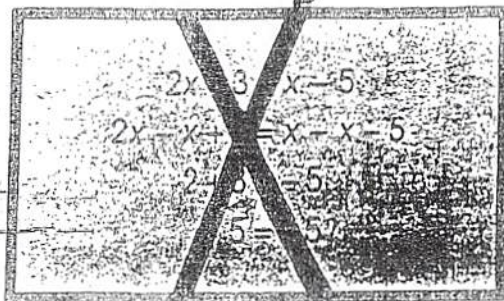
1.  $2x + 8 = -16$
2.  $\frac{x}{3} + 1 = 9$
3.  $\frac{x}{4} - 1 = 3$
4.  $3x + 9 = -27$
5.  $17 + 2x = -63$
6.  $-5x - 6 = 144$
8.  $-6x - 15 = -81$
9.  $\frac{x}{-3} + 2 = -4$
10.  $\frac{x}{6} + 6 = 3$

1		2		3
-1		2	1	1
2		4		4
	5		6	
	-4		-3	2
7				8
	-2	0	0	1
		9		10
		1		-2
11				
2	9	8		4





# Solving Equalities with Variables on Both Sides



## Tip

When subtracting monomials, subtract coefficients, *not* variables.

Solve the following equations. Write the answers in the correct box. When you are finished, the sum of each row, column, and diagonal should equal  $-2$ .

1.  $3x + 6 = 2x + 13$
2.  $5x - 8 = 4x - 15$
3.  $2x + 1 = x - 5$
4.  $x + 9 = 2x + 5$
5.  $3x - 8 = 4x - 4$
6.  $6x + 8 = 4x + 12$
7.  $7x - 6 = 6x - 5$
8.  $18x - 16 = 19x - 15$
9.  $3x + 17 = 2x + 17$
10.  $-4x + 8 = -2x + 12$
11.  $5x - 6 = 4x - 9$
12.  $11x + 16 = 15x + 4$
13.  $20x + 25 = 19x + 20$
14.  $2x - 17 = x - 12$
15.  $7x - 16 = 6x - 10$
16.  $2x - 5 = 3x + 3$

1	2	3	4
7	-7	-6	4
5	6	7	8
-4	2	1	-1
9	10	11	12
0	-2	-3	3
13	14	15	16
-5	5	6	-8

