

5.3 Practice A

In Exercises 1–4, solve the system of linear equations by elimination. Check your solution.

<p>1. $x - 3y = 2$ $-x + 2y = -3$</p>	<p>2. $4x - y = 5$ $3x + y = 9$</p>
<p>3. $2x - 5y = -7$ $-2x + 3y = 1$</p>	<p>4. $2x - 3y = 9$ $5x + 3y = 12$</p>
<p>5. Describe and correct the error in solving for one of the variables in the linear system $4x + 5y = -10$ and $2x - 4y = 9$.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="margin: 0;">× Step 1 $4x + 5y = -10$ $2x - 4y = 9$</p> <p style="margin: 0;">Step 2 (Multiply by 2.) $4x + 5y = -10$ $4x - 8y = 18$</p> <p style="margin: 0;">Step 3 $-3y = 8$ $y = -\frac{8}{3}$</p> </div>	

In Exercises 6-9, solve the system of linear equations by elimination. Check your solution.

6. $x + y = 7$
 $5x + 2y = 8$

7. $7x - 6y = 9$
 $5x + 2y = 19$

8. $3x + 4y = -1$
 $-2x - 5y = 10$

9. $-5x + 12y = 8$
 $2x - 8y = 0$

10. You and your friend are buying throw blankets with your names embroidered on them. The cost of the throw blanket is x dollars and the cost of each embroidered letter is y dollars. Your name has 6 letters and the total cost is \$29. Your friend's name has 3 letters and the total cost is \$24.50. Find the cost of the throw blanket and the cost of each embroidered letter.