

Lesson 8.3: Solving Systems of Linear Equations by Elimination

Complete the *Practice* below. When you have completed all the questions for *Lesson 8.3 Practice – IV* with your best work, mark your work by first comparing your answers to the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.



Practice – IV

- Use the following example to explain why the order of subtraction is not important when solving systems of equations by elimination.

$$\begin{array}{r} 5x + 9y = 7 \\ - (6x + 9y = 25) \\ \hline -x + 0y = -18 \end{array} \qquad \begin{array}{r} 6x + 9y = 25 \\ - (5x + 9y = 7) \\ \hline x + 0y = 18 \end{array}$$

- The subtraction of two equations is shown.

$$\begin{array}{r} 5x + 3y - 1 = 0 \\ - (2x - y + 4 = 0) \\ \hline 3x + 4y - 5 = 0 \end{array}$$

Explain why this subtraction is not useful for solving the linear system $5x + 3y - 1 = 0$ and $2x - y + 4 = 0$.

3. Solve the following systems of equations by elimination. Verify the solutions.

a. $52 - a = 4b$
 $70 - a = 6b$

b. $3x + 5y = -2$
 $x - y = -6$

c. $7x = 11 + 5y$
 $8y = -6x - 9$

d. $A - 2B = -4$
 $2A + 3B = 10$

4. Attempt to solve the following systems of equations. How is each pair of lines related?

a. $x + 3y = 11$
 $4x + 12y = 44$

b. $2x - 6y = 9$
 $3x - 9y = 12$

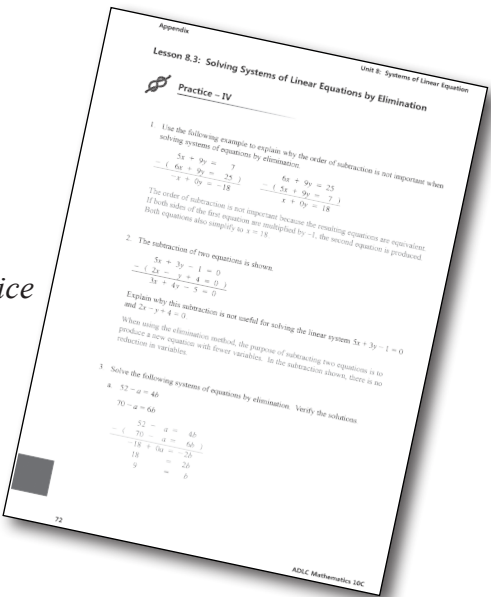
Mark your work for *Lesson 8.3 Practice – IV* using the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.

Transfer your self-assessed mark to the front cover of the *Workbook*.

My self-assessed mark on *Lesson 8.3 Practice – IV* is _____.

Reflect on your understanding of the concepts addressed in the *Practice* exercises in the table provided.

Question Number	Got it!	Almost there...	Need to retry or ask for help.
1			
2			
3			
4			



You may proceed to *Explore Your Understanding Assignment*, on the next page of this *Workbook*.

Note: Before you complete *Explore Your Understanding*, you may review your skills and get more practice by completing the following problems in *Mathematics 10*.

- Page 488, #1, 2, 3, 4, 5, and 6

Check your work in *Enhance Your Understanding*.

