EXTRA PRACTICE — Exercises

Unit III – First Degree Relations with Two Placeholders
Part D – Solution Sets for Systems of Two Open Sentences
Lesson 3 – Algebraic Solution for Equations - Elimination by Addition

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Find the solution set for each of the following systems of simultaneous linear equations by using addition to temporarily eliminate one of the placeholders.

1. $5x - 2y = 30$
   $x + 2y = 6$

2. $^-7x + y = 10$
   $7x + 2y = {}^-1$

3. $^-8x + 7y = 17$
   $8x + 11y = {}^-35$

4. $5x + 3y = 4$
   $4x - 3y = 14$

Find the solution set for each of the following systems of simultaneous linear equations by using addition to temporarily eliminate one of the placeholders. You may need to rewrite the equations in the $Ax + By = C$ form. You may even need to multiply the equations by some number to make opposites.

5. $7y - 2x = {}^-4$
   $4y = x - 1$

6. $2x = 1 + 3y$
   $5x + 6y = 16$

7. $10x + y = 7(x + y) + 3$
   $3y = x + 2$

8. $\dfrac{x}{2} = \dfrac{y+4}{3}$

   $\dfrac{x-y}{6} = \dfrac{1}{2}$

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Find the solution set for each of the following systems of simultaneous linear equations by using addition to temporarily eliminate one of the placeholders.

1. S = {(6, 0)}

2. S = {($^-$1, 3)}

3. S = {($^-$3, $^-$1)}

4. S = {(2, $^-$2)}

Find the solution set for each of the following systems of simultaneous linear equations by using addition to temporarily eliminate one of the placeholders. You may need to rewrite the equations in the Ax + By = C form. You may even need to multiply the equations by some number to make opposites.

5. S = {(9, 2)}

6. S = {(2, 1)}

7. S = {(7, 3)}

8. S = {(2, $^-$1)}