

EXTRA PRACTICE — Exercises

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Unit III – First Degree Relations with Two Placeholders Part E – Special Cases of Solution Sets for Systems **Lesson 2 – Infinite Number of Solutions - Dependent**

Find the solution set for each of the following systems of simultaneous linear equations by graphing the solution set of each. Also, use set notation to show the solution set.

1. $-3x + y = -2$
 $2y = 6x - 4$

2. $y = 2 - 3x$
 $\frac{x}{2} = \frac{1}{3} - \frac{y}{6}$

3. $x = -y + 6$
 $-3x - 3y = -18$

4. $\frac{3x + 2y}{6} = \frac{4}{3}$
 $0.2y + 0.3x = 0.8$

Find the solution set for each of the following systems of simultaneous linear equations algebraically, using addition or substitution to temporarily eliminate one of the placeholders. Also, use set notation to show the solution set.

5. $4x + 2y = 4$
 $-6x - 3y = -6$

6. $3x + 2y = 5$
 $-6x = 4y - 10$

7. $4x = 2y + 1$
 $4y = 8x - 2$

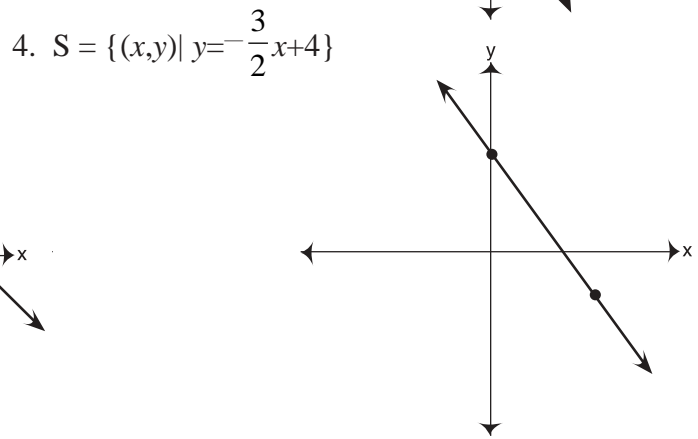
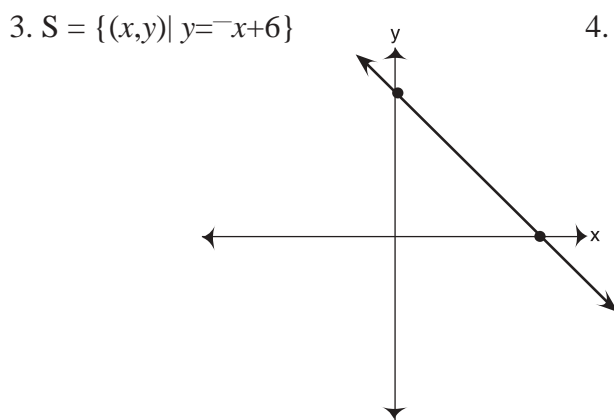
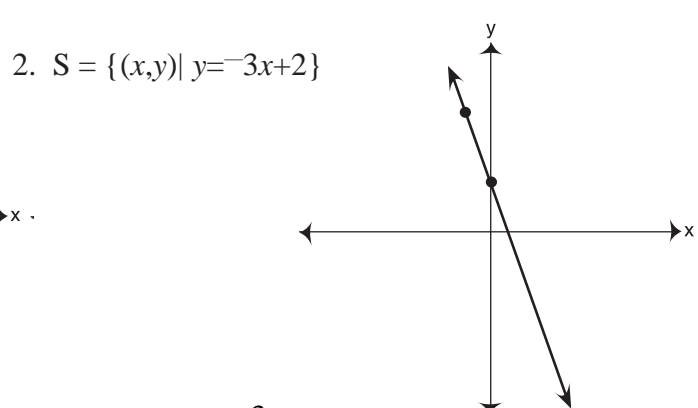
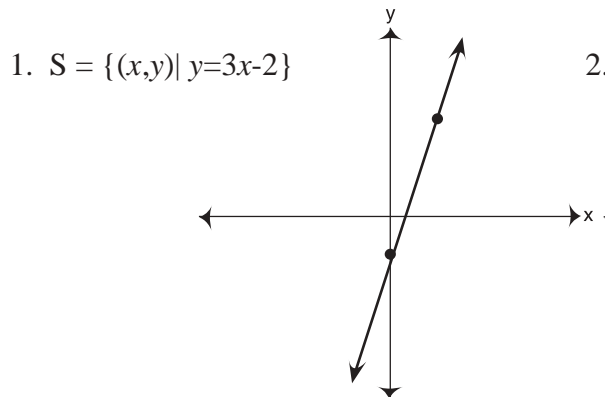
8. $x - \frac{5}{3}y = 3$
 $\frac{-3}{5}x + y = \frac{-9}{5}$

EXTRA PRACTICE — Answer Key

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Find the solution set for each of the following systems of simultaneous linear equations by graphing the solution set of each. Also, use set notation to show the solution set.



Find the solution set for each of the following systems of simultaneous linear equations algebraically, using addition or substitution to temporarily eliminate one of the placeholders. Also, use set notation to show the solution set.

5. $S = \{(x,y) | y=2-2x\}$ OR
 $S = \{(x, 2-2x) | x \text{ is any real number}\}$

6. $S = \{(x,y) | 3x+2y=5\}$ OR
 $S = \{(x, -\frac{3}{2}x + \frac{5}{2}) | x \text{ is any real number}\}$

7. $S = \{(x,y) | y=2x-\frac{1}{2}\}$ OR
 $S = \{(x, 2x-\frac{1}{2}) | x \text{ is any real number}\}$

8. $S = \{(x,y) | y=\frac{3}{5}x-\frac{9}{5}\}$ OR
 $S = \{(x, \frac{3}{5}x-\frac{9}{5}) | x \text{ is any real number}\}$