Student: yaser almohaws **Submitted:** 12/25/14 9:52pm	**Instructor:** fahad aljabr **Course:** MATH-001: Fundamentals of Math 11415 **Book:** Bittinger: Introductory and Intermediate Algebra, 4e	**Assignment:** Graded Homework 9

1. Solve the following system of equations by the elimination method.

$$\frac{1}{3}x + \frac{1}{4}y = 9$$
$$\frac{1}{3}x - \frac{5}{4}y = -15$$

What is the solution of the system? Select the correct choice below, and fill in the answer box if necessary.

- A. The solution is $(15,16)$.
  (Type an ordered pair. Use integers or fractions for any numbers in the expression.)
- B. There are infinitely many solutions.
- C. There is no solution.

2. Find the linear function, $f(x) = mx + b$, whose graph has the given slope and y-intercept.

Slope is $-\frac{11}{7}$ and y-intercept is $(0, -6)$.

The linear function is $f(x) = -\frac{11}{7}x - 6$.

3. Solve the given system by the substitution method.

$$2x + y = 8$$
$$7x - 2y = 17$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(3,2)$. (Type an ordered pair.)
- B. There are infinitely many solutions.
- C. There is no solution.

4. Find an equation of the line having the given slope and containing the given point. Express your answer in the form $x = a$, $y = b$, or $y = mx + b$.

$m = -9, (5,0)$

The equation of the line is $y = -9x + 45$.

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5. Solve by the elimination method.

$$x + 3y = 8$$
$$-x + 6y = 1$$

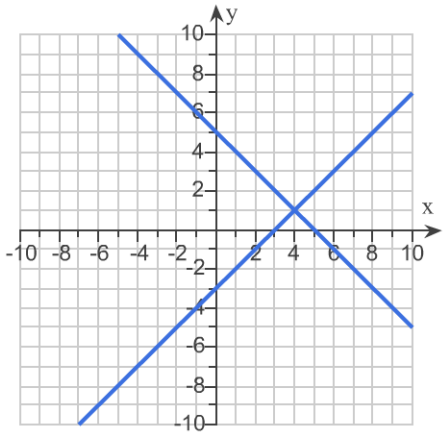
What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(5,1)$.
  (Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)
- B. There are infinitely many solutions.
- C. There is no solution.

6. Solve the system of equations by graphing. Then classify the system.

$$x + y = 5$$
$$x - y = 3$$

Use the graphing tool to graph the system.



What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(4,1)$.
  (Type an ordered pair.)
- B. There are infinitely many solutions.
- C. There is no solution.

Is the system consistent or inconsistent?

consistent inconsistent

Are the equations dependent or independent?

dependent independent

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7. Solve the system of equations using the substitution method.

$2x + 3y = -4$

$2x - y = 7$

Select the correct choice below and fill in any answer boxes present in your choice.

A. The solution of the system is $\left(\frac{17}{8}, -\frac{11}{4}\right)$.

(Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)

B. There are infinitely many solutions.

C. There is no solution.

8. The plans for a shed call for a rectangular floor with a perimeter of 186 ft. The length is two times the width. Find the length and width.

The width is 31 ft. The length is 62 ft.

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9. Solve the system of equations by graphing. Then classify the system.

$2x - 6y = 42$
$3x - 9y = -24$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is ____. (Type an ordered pair.)
- B. There are infinitely many solutions.
- ✓ C. There is no solution.

Is the system consistent or inconsistent?

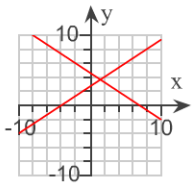
- consistent
- ✓ inconsistent

Are the equations dependent or independent?

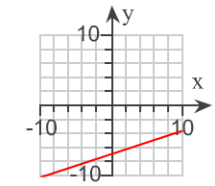
- dependent
- ✓ independent

Choose the correct graph below.

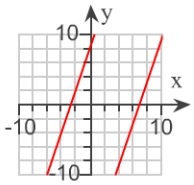
A.



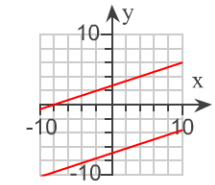
B.



C.



✓ D.



10. Find an equation of the line having the given slope and containing the given point.

$m = -3, (1,4)$

The equation of the line is $y =$ $-3x + 7$.
(Simplify your answer. Type your answer in slope-intercept form. Use integers or fractions for any numbers in the equation.)

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11. Solve the system of equations by graphing. Then classify the system.

$3x - y = 7$
$3x + 4y = 2$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(2, -1)$. (Type an ordered pair.)
- B. There are infinitely many solutions.
- C. There is no solution.

Is the system consistent or inconsistent?

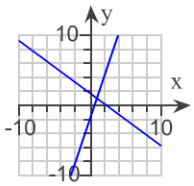
- consistent
- inconsistent

Are the equations dependent or independent?

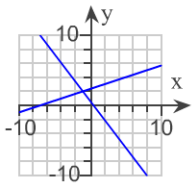
- independent
- dependent

Choose the correct graph below.

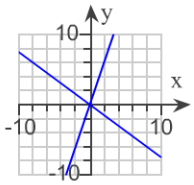
A.



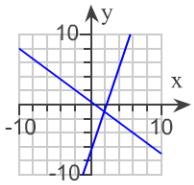
B.



C.



D.



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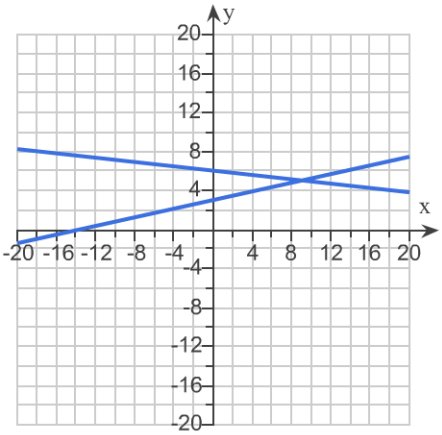
12. Solve the system of functions by graphing. Then classify the system.

$$f(x) = -\frac{1}{9}x + 6$$

$$g(x) = \frac{2}{9}x + 3$$



Use the graphing tool to graph the system.

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(9,5)$. (Type an ordered pair.)
- B. There are infinitely many solutions.
- C. There is no solution.

Is the system consistent or inconsistent?

- Inconsistent
- Consistent

Are the equations dependent or independent?

- Independent
- Dependent

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13. Solve the system of equations by graphing. Then classify the system.

$7x - 6y = -18$
$6y - 7x = 18$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is ____. (Type an ordered pair.)
- B. There are infinitely many solutions. ✓
- C. There is no solution.

Is the system consistent or inconsistent?

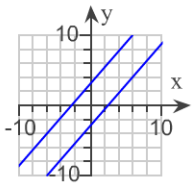
- Inconsistent
- Consistent ✓

Are the equations dependent or independent?

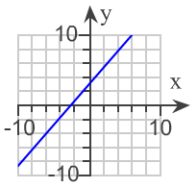
- Dependent ✓
- Independent

Choose the correct graph below.

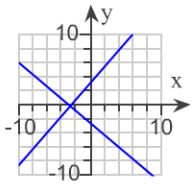
A.



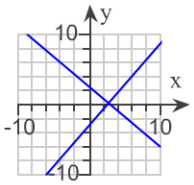
B. ✓



C.



D.



14. Solve by the elimination method.

$3x + 9y = 45$
$9x - 9y = -81$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. ✓ The solution is $(-3,6)$. (Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)
- B. There are infinitely many solutions.
- C. There is no solution.

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15. Solve by the elimination method.

$$0.13x + 0.03y = 0.62$$
$$0.6x - 0.2y = 3.2$$

Determine the solution of the system. Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(5, -1)$. (Type an ordered pair.)
- B. There are infinitely many solutions.
- C. There is no solution.

16. Solve using the substitution method.

$$-2x + y = 14$$
$$2x + 19y = 146$$

Select the correct choice below and fill in any answer boxes in your choice.

- A. The solution is $(-3, 8)$. (Simplify your answer. Use integers or fractions for any numbers in the expression. Type an ordered pair.)
- B. There are infinitely many solutions.
- C. There is no solution.

17. Solve the following system of equations.

$$x + 5y = 2$$
$$x = 8 - 5y$$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is . (Type an ordered pair.)
- B. There is no solution.

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18. Solve by the elimination method.

$3x + 4y = 5$

$6x + 8y = 10$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is ____.
  (Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)
- B. There are infinitely many solutions. ✓
- C. There is no solution.

19. Solve the following system of equations by the elimination method.

$8x + 3y = -11$
$3x - y = -2$

What is the solution of the system? Select the correct choice below, and fill in the answer box if necessary.

- A. The solution is $(-1, -1)$. ✓
  (Type an ordered pair. Use integers or fractions for any numbers in the expression.)
- B. There are infinitely many solutions.
- C. There is no solution.

20. Find the slope-intercept equation of the line that has the given characteristics.

Slope -5 and y-intercept $(0,5)$

The equation is $y =$ $-5x + 5$.
(Simplify your answer. Type your answer in slope-intercept form.)

21. Solve by the substitution method.

$4x + 5y = 24$
$x = 68 - 9y$

What is the solution of the system? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. The solution is $(-4,8)$. ✓
  (Type an ordered pair.)
- B. There is no solution.

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22. Find an equation of the line having the given slope and containing the given point.

$m = \frac{6}{7}, (3, -1)$

The equation of the line is $y = \frac{6}{7}x - \frac{25}{7}$.

(Type an expression using x as the variable. Simplify your answer. Use integers or fractions for any numbers in the expression.)

23. Solve the system of equations using the substitution method.

$2x + 4y = -5$

$2x - y = 7$

Select the correct choice below and fill in any answer boxes present in your choice.

A. The solution of the system is $\left(\frac{23}{10}, -\frac{12}{5}\right)$.

(Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)

B. There are infinitely many solutions.

C. There is no solution.