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Line A is represented by the following equation:

Line A: $-x - y = -2$

What is most likely the equation for line B so the set of equations has infinitely many solutions?

a. $-3x - 6y = -5$
b. $0x - 6y = -6$
c. $-3x - 3y = -6$
d. $0x - 3y = -5$

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Two lines, M and N, are represented by the following equations:

Line M: $x - y = -11$

Line N: $3x - y = -27$

Which of the following options shows the solution to the system of equations and explains why?

a. (–8, 3), because the point lies between the two axes
b. (–8, 3), because the point does not lie on any axis
c. (–8, 3), because both lines pass through this point
d. (–8, 3), because one of the lines passes through this point

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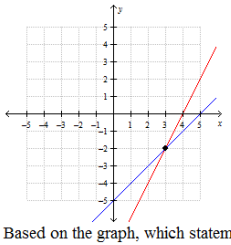

Based on the graph, which statement is correct about the solution to the system of equations for the blue and red lines?

a. (3, –2) is the solution for the blue but not the red line.
b. (3, –2) is not the solution for red line or the blue line.
c. (3, –2) is the solution for red line and the blue line.
d. (3, –2) is the solution for the red but not the blue line.

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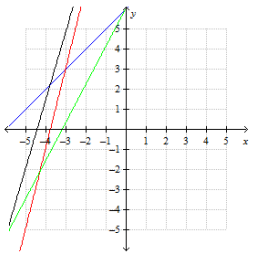

Which set of equations has (–3, 3) as its solution?

a. Blue and red lines
b. Black and green lines
c. Red and black lines
d. Green and blue lines

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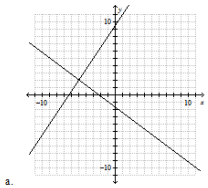
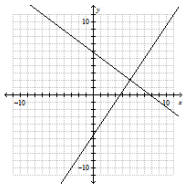
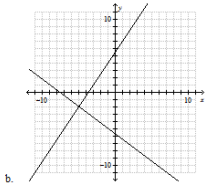
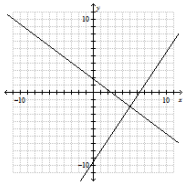
Which of the following graphs shows the solution $(-5, 2)$?

a. 

c. 

b. 

d. 

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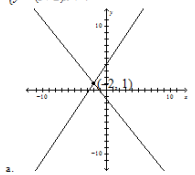
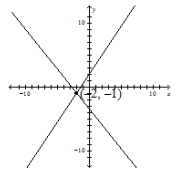
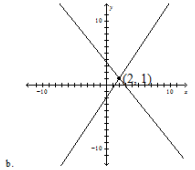
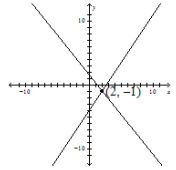
Which graph shows the solution for the following?

$$\begin{cases} y = (-5/4)x - 3/2 \\ y = (3/2)x + 4 \end{cases}$$

a. 

c. 

b. 

d. 

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A set of equations is given below:

$y = 2x - 7$

$y = -9x - 1$

Which of the following steps can be used to find the solution to the set of equations?

a. $-9x = 2x - 7$
b. $2x = -9x - 1$
c. $2x - 1 = -9x - 7$
d. $-9x - 1 = 2x - 7$

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A set of equations is given below:

Equation R: $y = -8x - 9$

Equation S: $y = -8x + 18$

Which of the following options is true about the solution to the given set of equations?

a. No solutions
b. One solution
c. Two solutions
d. Infinitely many solutions

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Solve the system of equations and choose the correct answer from the list of options.

$d + e = 15$

$-d + e = -1$

Label the ordered pair as (d, e).

a. $(-8, 7)$
b. $(8, -7)$
c. $(8, 7)$
d. $(-8, -7)$

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Solve the system of equations and choose the correct answer from the list of options:

$5x + y = +4$

$y = 7x + 9$

a. $(-\frac{5}{12}, -\frac{17}{12})$
b. $(\frac{5}{12}, -\frac{17}{12})$
c. $(-\frac{5}{12}, \frac{17}{12})$
d. $(\frac{5}{12}, \frac{17}{12})$

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A student is trying to solve the system of two equations given below:

$a + b = -7$

$2a - 8b = 46$

Which of the following steps can be used to eliminate the **a term**?

a. $-2(a + b = -7)$
b. $-2(2a - 8b = 46)$
c. $2(2a - 8b = 46)$
d. $2(a + b = -7)$

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Madison was solving a set of equations shown below:

$\begin{cases} x + 4y = 24 \\ 3x + 3y = 27 \end{cases}$

Step 1: $-3(x + 4y = 24)$
$3x + 3y = 27$

Step 2: $-3x + -12y = -73$
$3x + 3y = 27$

Step 3: $-9y = -45$

Step 4: $x + 4(5) = 24$

Step 5: $x = 4$

In which step did Madison make the first error?

a. Step 3
b. Step 1
c. Step 2
d. Step 4

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Variable x is 2 more than variable y. Variable x is also 4 less than y. Which of the following pairs of equations best models the relationship between x and y?

Which of the following statements is a correct step to find x and y?

a. $x = y + 2$
$x = y + 4$

b. $x = y - 2$
$x = y + 4$

c. $x = y + 2$
$x = y - 4$

d. $x = y - 2$
$x = y - 4$

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An unknown number y is 6 more than an unknown number x. The number y is also x less than 2. The equations to find x and y are shown below.

$y = x + 6$

$y = -x + 2$

Which of the following statements is a correct step to find x and y?

a. Add the equations to eliminate x.
b. Multiply the equations to eliminate y.
c. Write the points where the graphs of the equations intersect the y-axis.
d. Write the points where the graphs of the equations intersect the x-axis.

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Billy and Sarah put some money into their money boxes every week. The amount of money (y), in dollars, in their money boxes after a certain amount of time (x), in weeks, is shown by the equations below:

Billy: $y = 50x + 20$

Sarah: $y = 40x + 70$

After how many weeks will Billy and Sarah have the same amount of money in their money boxes, and what is that amount?

a. 4 weeks and \$280
b. 5 weeks and \$280
c. 4 weeks and \$270
d. 5 weeks and \$270

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A carnival ride ticket costs \$7 per adult and \$3 per child. On a certain day, the total number of adults (a) and children (c) who bought ride tickets was 39, and the total money collected was \$229. Which of the following options represents the number of children and the number of adults who purchased ride tickets that day, and the pair of equations that can be solved to find the numbers?

a. 11 adults and 28 children
$\begin{cases} a + c = 39 \\ 7a - 3c = 229 \end{cases}$

b. 11 adults and 28 children
$\begin{cases} a + c = 39 \\ 7a + 3c = 229 \end{cases}$

c. 11 children and 28 adults
$\begin{cases} a + c = 39 \\ 7a - 3c = 229 \end{cases}$

d. 11 children and 28 adults
$\begin{cases} a + c = 39 \\ 7a + 3c = 229 \end{cases}$