THIRD SPACE LEARNING

Intersecting Lines Worksheet

Algebra

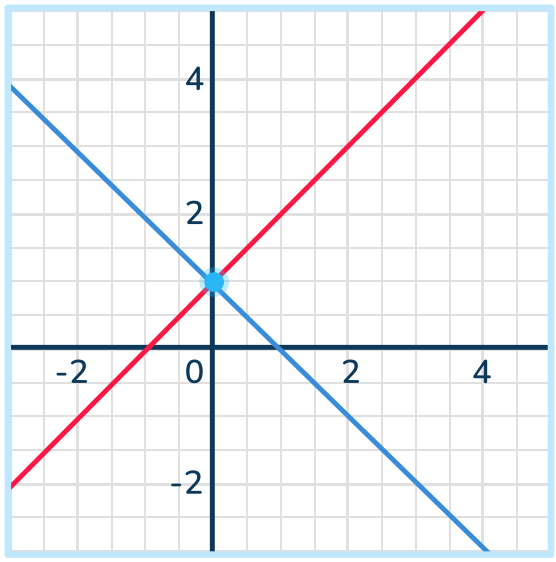
Grades 6 to 8

Skill Questions

Name: .....

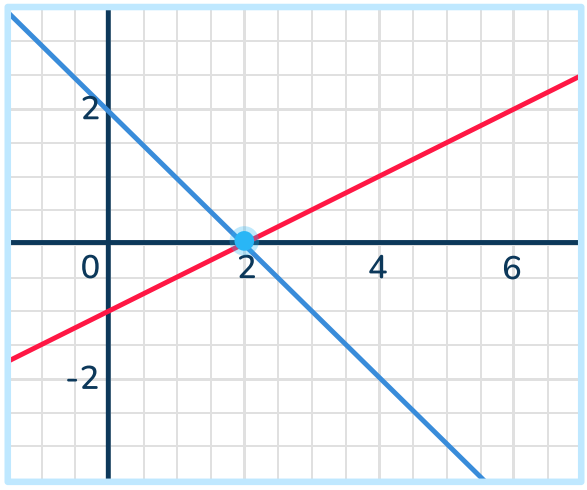
Date: .....

1 What is the ordered pair of the point of intersection?



Answer

2 What is the solution to the system of equations?

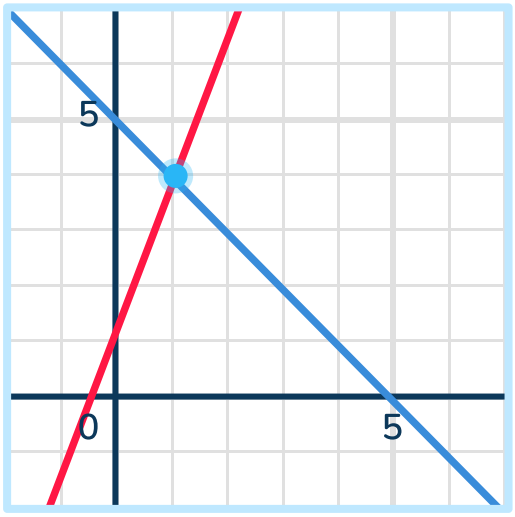


Answer

3 Determine the point of intersection for the lines $y = 2x + 3$ *and* $y = 3x - 6$

Answer

4 What is the solution to the linear system?



Answer

5 Determine the point of intersection for the lines $y = 3x + 1$ *and* $y = 2x - 5$

Answer

6 Solve the system of equations.

$x - y = -9$

$x + y = -5$

Answer

7 Solve the system of equations.

$x + 2y = -7$

$-x - y = 11$

Answer

8 Solve the system of equations.

$-3x - 2y = -13$

$7x + y = 1$

Answer

9 Solve the system of equations.

$8x + 4y = 8$

$x + 4y = -20$

Answer

10 Find the intersecting point of the linear system:

$x + y = 3$

$2x + 3y = 6$

Answer

Applied Questions

11 Create a system of equations that has an intersection point at (3, 1).

Answer

12 Create a system of equations that intersect at the point (0, 1)

Answer

13 Dillion has 30 coins in his jar that equal $1.50. Some of the coins are dimes (x) and some of the coins are nickels (y). How many of each does he have?

Answer

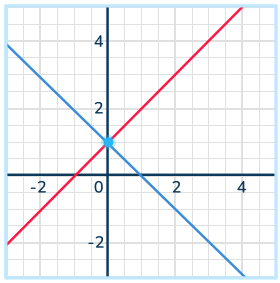
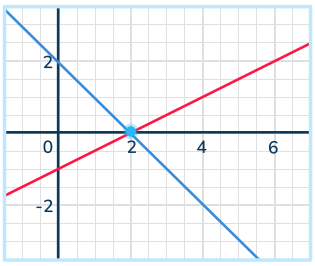
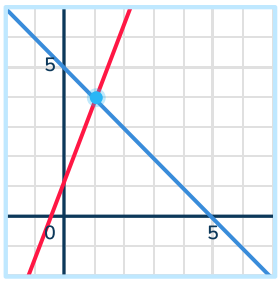
14 Harriet graphs the system $y = x$ and $y = -x$ and says that the lines do not intersect. Charles graphs the same system and identifies the point (0, 0) to be the point of intersection. Who is correct and why?

Answer

15 The sum of two numbers is 33, and their difference is 9. Find the two numbers.

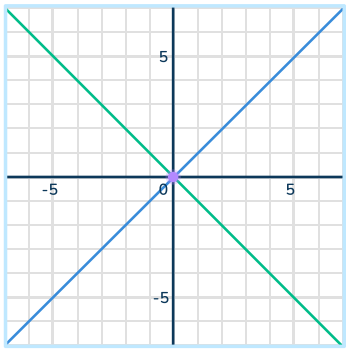
Answer

Answers

Question number	Question	Answers	Standard
1	What is the ordered pair of the point of intersection? 	(0, 2)	8.EE.C.8
2	What is the solution to the system of equations? 	$x = 2$ $y = 0$	8.EE.C.8
3	Determine the point of intersection for the lines $y = 2x + 3 \; and \; y = 3x - 6$	(9, 21)	8.EE.C.8
4	What is the solution to the linear system? 	$x = 1$ $y = 4$	8.EE.C.8
5	Determine the point of intersection for the lines $y = 3x + 1 \; and \; y = 2x - 5$	(-6, -17)	8.EE.C.8

Intersecting Lines Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
6	Solve the system of equations. $x - y = -9$ $x + y = -5$	$x = -7, y = 2$	8.EE.C.8
7	Solve the system of equations. $x + 2y = -7$ $-x - y = 11$	$x = -15, y = 4$	8.EE.C.8
8	Solve the system of equations. $-3x - 2y = -13$ $7x + y = 1$	$x = -1, y = -8$	8.EE.C.8
9	Solve the system of equations. $8x + 4y = 8$ $x + 4y = -20$	$x = 4, y = -6$	8.EE.C.8
10	Find the intersecting point of the linear system: $x + y = 3$ $2x + 3y = 6$	(3, 0)	8.EE.C.8
11	Create a system of equations that has an intersection point at (3, 1).	$y = \frac{1}{3}x$ $x = 3$	8.EE.C.8
12	Create a system of equations that intersect at the point (0, 1)	Answers vary: $y = 2x + 1$ $y = -\frac{1}{3}x + 1$	8.EE.C.8
13	Dillion has 30 coins in his jar that equal $1.50. Some of the coins are dimes (x) and some of the coins are nickels (y). How many of each does he have?	20 dimes 10 nickels	8.EE.C.8

Question number	Question	Answers	Standard
14	Harriet graphs the system $y = x$ and $y = -x$ and says that the lines do not intersect. Charles graphs the same system and identifies the point (0, 0) to be the point of intersection. Who is correct and why?	Charles is correct because when graphing each of the lines, $y = x$ and $y = -x$, the lines intersect at the origin. 	8.EE.C.8
15	The sum of two numbers is 33, and their difference is 9. Find the two numbers.	The two numbers are 21 and 12.	8.EE.C.8

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