



Solve systems of linear equations graphically

1

How would you check whether $(x, y) = (-1, 1)$ is a solution to this system of linear equations?

$$2x + 2y = 0$$

$$x + 2y = 1$$

A

$$\begin{aligned} 2(-1) + 2(1) &= 0 \\ x + 2y &= 1 \end{aligned}$$

B

$$\begin{aligned} 2(-1) + 2(1) &= 0 \\ (-1) + 2(1) &= 1 \end{aligned}$$

C

$$\begin{aligned} 2(1) + 2(-1) &= 0 \\ (1) + 2(-1) &= 1 \end{aligned}$$

D

$$\begin{aligned} 2(0) + 2(1) &= 0 \\ (0) + 2(1) &= 1 \end{aligned}$$

2

Is $(x, y) = (4, -2)$ a solution to this system of linear equations?

$$x + 4y = -4$$

$$x + y = 2$$

A

Yes

B

No

3

One solution

A

The lines are the same line

B

The lines cross at one point

C

The lines are parallel

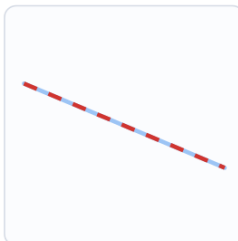
4

Infinitely many solutions

A



B

**5**

The lines are the same line

A

Infinitely many solutions

B

Zero solutions

C

One solution



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The lines are the same line

A

$$4x + y = 5$$
$$12x + 3y = 15$$

B

$$2x + 2y = 6$$
$$2x + 3y = 0$$

7

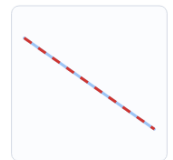
Which graph matches this system of linear equations?

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

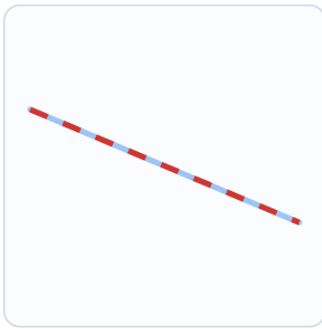
A



B

**8**

Which pair of linear equations matches this graph?



A

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

B

$$4x + 4y = -5$$
$$8x + 8y = -10$$

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One solution

A

$$3x + 3y = -6$$
$$3x + 3y = -9$$

B

$$3x + y = 1$$
$$x + 4y = 2$$

10

How many solutions does this system of linear equations have?

$$3x + 4y = -6$$
$$3x + 4y = -10$$

A Zero solutions

B One solution

C Infinitely many solutions

11

Find the intersection point of these two lines

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

A (0, -4)

B (-3, -1)

C (-1, 0)

D (-3, -2)

E (-3, -4)

F (-3, -6)

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Find the intersection point of these two lines

$$y = 4x - 0$$
$$x = 0$$

A (0, -1)

B (0, 0)

C (-4, -5)

D (2, 2)

E (1, -4)

F (4, 2)



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Find the intersection point of these two lines

$$y = -1x + 8$$

$$y = -6$$

A	(17, -4)	B	(15, -6)
C	(12, -7)	D	(16, -6)
E	(14, -8)	F	(14, -6)

14

Find the intersection point of these two lines

$$y = -3x + 3$$

$$y = 3$$

A	(-4, 3)	B	(-0, 3)
C	(-5, 3)	D	(3, -1)
E	(-2, 3)	F	(0, 3)

15

How many solutions does this system of linear equations have?



A	Infinitely many solutions	B	One solution	C	Zero solutions
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16

Find the intersection point of these two lines

$$y = 8x - 6$$

$$y = 3x - 1$$

A	(-3, -1)	B	(5, -1)
C	(1, 2)	D	(2, 3)
E	(-3, 3)	F	(5, 3)

17

Find the intersection point of these two lines

$$y = 7x - 0$$

$$y = 8x + 2$$

A	(-2, -14)	B	(-5, -15)
C	(-2, -13)	D	(-5, -16)
E	(-1, -11)	F	(-3, -17)