

Choose an efficient method for solving a linear system

1

Solve for the variable in the equation
 $8b - 6 = 129 - 7b$

A $b = 7$

B $b = 8$

C $b = 9$

D $b = 12$

E $b = 11$

F $b = 10$

2

What number can be put in the circle to make this equation correct?

$$9 \cdot \bigcirc - 9 = 27 + 5 \cdot \bigcirc$$

A $\bigcirc = 8$

B $\bigcirc = 9$

C $\bigcirc = 12$

D $\bigcirc = 6$

E $\bigcirc = 7$

F $\bigcirc = 10$

3

What number can be put in the circle to make this equation correct?

$$5 \cdot \bigcirc = 4 + 4 \cdot \bigcirc$$

A $\bigcirc = 2$

B $\bigcirc = 4$

C $\bigcirc = 6$

D $\bigcirc = 7$

E $\bigcirc = 3$

F $\bigcirc = 1$

4

What line equation would be equivalent to this standard form line equation?

$$0.5x + 1y = 1.5$$

A $y = -2x + 1.5$

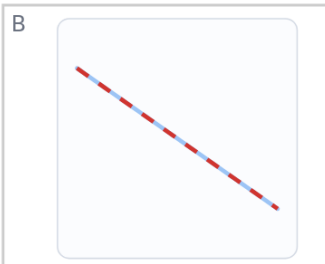
B $y = \frac{2}{2}x + 1.5$

C $y = -\frac{1}{2}x + 1.5$

D $y = \frac{1}{2}x + 1.5$

5

Infinitely many solutions

**6**

The lines are parallel

A
$$\begin{aligned} 2x + y &= 4 \\ x + y &= -8 \end{aligned}$$

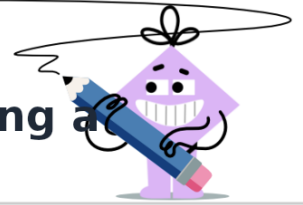
B
$$\begin{aligned} 3x + y &= -3 \\ 3x + y &= 1 \end{aligned}$$

7

Zero solutions

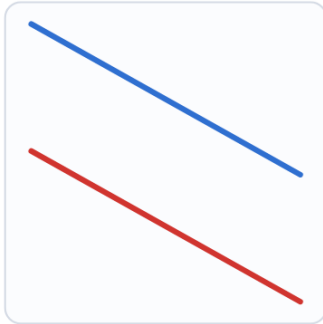
A
$$\begin{aligned} 4x + y &= -2 \\ 12x + 3y &= -6 \end{aligned}$$

B
$$\begin{aligned} 4x + 3y &= 1 \\ 4x + 3y &= 4 \end{aligned}$$



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- 8** Which pair of linear equations matches this graph?



A $4x + 3y = 6$
 $4x + 3y = 7$

B $3x + y = -8$
 $2x + 4y = -4$

- 9** Substitute the second equation into the first equation to form a single solvable equation

$$\begin{aligned} 11d + 2r &= 82 \\ r &= 12d + 6 \\ d &=? \end{aligned}$$

- | | |
|------------------------|-------------------------|
| A $11d - 12d = 82$ | B $11d + 24d - 12 = 82$ |
| C $12d - 12d + 6 = 82$ | D $24d - 12d - 0 = 82$ |
| E $2d + 12 = d$ | F $11d + 24d + 12 = 82$ |

- 10** Solve for the variable by substituting the second equation into the first

$$\begin{aligned} 4t - q &= 3 \\ q &= 3t \\ t &=? \end{aligned}$$

- | | |
|-----------|-----------|
| A $t = 2$ | B $t = 3$ |
| C $t = 1$ | D $t = 6$ |
| E $t = 5$ | |

- 11** Solve for the variable by substituting the second equation into the first

$$\begin{aligned} 11n + 2z &= 119 \\ z &= 11n + 10 \\ n &=? \end{aligned}$$

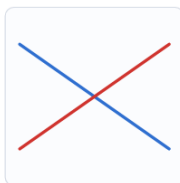
- | | |
|------------|------------|
| A $n = 6$ | B $n = 2$ |
| C $n = 3$ | D $n = 1$ |
| E $n = 20$ | F $n = 22$ |

- 12** Solve for the variable by adding or subtracting multiples of the second equation to the first

$$\begin{aligned} 7c + 10m &= 132 \\ 7c - 4m &= -6 \\ m &=? \end{aligned}$$

- | | |
|-------------|------------|
| A $m = 12$ | B $m = 14$ |
| C $m = 126$ | D $m = -6$ |
| E $m = 8$ | F $m = 9$ |

- 13** How many solutions does this system of linear equations have?

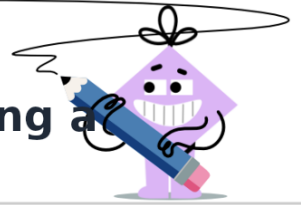


- A One solution B Infinitely many solutions C Zero solutions

- 14** How many solutions does this system of linear equations have?

$$\begin{aligned} 4x + 3y &= 2 \\ 12x + 9y &= 6 \end{aligned}$$

- A Zero solutions
B One solution
C Infinitely many solutions



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How would you check whether $(x, y) = (-2, 1)$ is a solution to this system of linear equations?

$$x + y = -1$$

$$x + 3y = 1$$

A

$$(1) + (-2) = -1$$

$$(1) + 3(-2) = 1$$

B

$$(-2) + (1) = -1$$

$$(-2) + 3(1) = 1$$

C

$$(-2) + (1) = -1$$

$$x + 3y = 1$$

D

$$(-1) + (1) = -1$$

$$(-1) + 3(1) = 1$$

16

Is $(x, y) = (3, 3)$ a solution to this system of linear equations?

$$x + 4y = 15$$

$$3x + 4y = 21$$

A

No

B

Yes

17

Which graph matches this system of linear equations?

$$x + 4y = 1$$

$$x + 4y = -1$$

A



B

