

Write a system of linear equations from context

1

Substitute the second variable equation into the first equation to form a single solvable equation

$$\begin{aligned} 2p + m &= 42 \\ m &= 5p \\ p &=? \end{aligned}$$

A $2p + 7p = 42$

B $9p + 5 = p$

C $2p - 9p = 42$

D $2p + 5p = 42$

E $2p - 8p = 42$

F $2p + 8p = 42$

2

Substitute the second equation into the first equation to form a single solvable equation

$$\begin{aligned} 7x + y &= 51 \\ y &= 2x + 6 \\ x &=? \end{aligned}$$

A $6x - 2x - 3 = 51$

B $7x + 7x = 51$

C $7x + 2x + 6 = 51$

D $7x + 6x + 7 = 51$

E $7x + 6x - 7 = 51$

F $7x + 2x + 4 = 6$

3

Add or subtract multiples of the second equation to the first equation to form a single solvable equation

$$\begin{aligned} 9r + 10n &= 74 \\ -9r + 4n &= -46 \\ n &=? \end{aligned}$$

A $10n - 14n = 74$

B $10n - 9n + 5 = -46$

C $28n = 5$

D $28n = 14$

E $4n + 9 = n$

F $14n = 28$

4

Which equations represent what these meals cost

$$4(4 \text{ 🥗} + 4 \text{ 🍟}) = 12$$

$$4 \text{ 🥗} + 2 \text{ 🍟} = 22$$

$$1 \text{ 🥗} + 1 \text{ 🍟} = ?$$

A $\begin{aligned} 4(4s + 6f) &= 112 \\ 4s + 4f &= 22 \\ f &=? \end{aligned}$

B $\begin{aligned} 4(4s + 4f) &= 112 \\ 4s + 2f &= 22 \\ s + f &=? \end{aligned}$

C $\begin{aligned} 4(3s + 6f) &= 112 \\ 7s + 4f &= 22 \\ s &=? \end{aligned}$

D $\begin{aligned} 4(3s + 5f) &= 112 \\ 4s + 4f &= 22 \\ 4s &=? \end{aligned}$

5

Which equations represent what these meals cost

$$4 \text{ 🍕} + 3 \text{ 🍩} = 28$$

$$1 \text{ 🍕} + 1 \text{ 🍩} = 8$$

$$1 \text{ 🍩} = ?$$

A $\begin{aligned} 4c + 6d &= 28 \\ c + d &= 8 \\ d + c &=? \end{aligned}$

B $\begin{aligned} 3c + 6d &= 28 \\ c + d &= 8 \\ d + c &=? \end{aligned}$

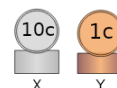
C $\begin{aligned} 3c + 3d &= 28 \\ d &= 8 \\ d + 2c &=? \end{aligned}$

D $\begin{aligned} 4c + 3d &= 28 \\ c + d &= 8 \\ d &=? \end{aligned}$

6

With X Dimes and Y Pennies, some coins are worth \$0.31. With Y Dimes and X Pennies they would be worth \$0.13. What is X + Y?

\$0.31



A 6

B 12

C 4

D 13

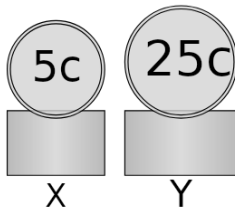


Write a system of linear equations from a context

7

With X Nickels and Y Quarters, some coins are worth \$0.60. With Y Nickels and X Quarters they would be worth \$0.60. What equations would help us solve for X and Y?

\$0.60

**A**

$$\begin{aligned} 5X + 25Y &= 60 \\ 5Y + 25X &= 60 \end{aligned}$$

B

$$\begin{aligned} 5X + 10Y &= 60 \\ 5Y + 10X &= 30 \end{aligned}$$

8

Which equations represent what these meals cost

$$3 \text{ burger} + 3 \text{ donut} = 30$$

$$3(1 \text{ burger} + 2 \text{ donut}) = 45$$

$$1 \text{ burger} + 1 \text{ donut} = ?$$

A

$$\begin{aligned} 2h + 3d &= 30 \\ 3(h + 3d) &= 45 \\ 2d &=? \end{aligned}$$

B

$$\begin{aligned} 3h + 3d &= 30 \\ 3(h + 2d) &= 45 \\ h + d &=? \end{aligned}$$

C

$$\begin{aligned} 2h + 3d &= 30 \\ 3(h + 3d) &= 45 \\ d &=? \end{aligned}$$

D

$$\begin{aligned} 2h + 3d &= 30 \\ 3(h + 3d) &= 45 \\ 4d &=? \end{aligned}$$

9

Which equations represent what these meals cost

$$3 \text{ fries} + 2 \text{ donut} = 7$$

$$6 \text{ fries} + 2 \text{ donut} = 10$$

$$1 \text{ donut} = ?$$

A

$$\begin{aligned} 2d &= 7 \\ 3f + 2d &= 10 \\ 4d &=? \end{aligned}$$

B

$$\begin{aligned} 3f + 2d &= 7 \\ 6f + 2d &= 10 \\ d &=? \end{aligned}$$

C

$$\begin{aligned} 4d &= 7 \\ 4f + 2d &= 10 \\ 5d &=? \end{aligned}$$

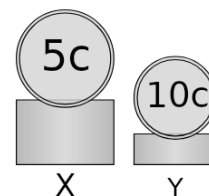
D

$$\begin{aligned} 2d &= 7 \\ 3f + 2d &= 10 \\ d &=? \end{aligned}$$

10

With X Nickels and Y Dimes, some coins are worth \$0.30. With Y Nickels and X Dimes they would be worth \$0.45. What equations would help us solve for X and Y?

\$0.30

**A**

$$\begin{aligned} 25X + 10Y &= 30 \\ 25Y + 10X &= 65 \end{aligned}$$

B

$$\begin{aligned} 5X + 10Y &= 30 \\ 5Y + 10X &= 45 \end{aligned}$$