Choose the best answer

The city produces 8 jobs every year. Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs if they have to reserve 3 jobs for employment equity e.g. \( y = 1x + 1 \)

- \( x = 8y - 3 \)
- \( 8y = -3x \)
- \( 3y = -8 - x \)
- \( x = 3y - 8 \)

Show your work

Choose the best answer

Farmer Olivia's total chicken flock is decreasing. She loses 12 chickens per week. Write a formula to represent the relationship between the total number of chickens and the number of weeks if Olivia had a one time loss of 9 chickens due to Avian Influenza. e.g. \( y = 1x + 5 \)

- \( 9l = 12 + k \)
- \( k = 9l + 12 \)
- \( k = -12l - 9 \)
- \( 12l = 9k \)

Show your work

Choose the best answer

Austin makes $14 an hour. Write an equation that shows the relationship between the money made and the hours worked if Austin makes a flat rate of $10. e.g. \( y = 1x + 1 \)

- \( 10y = -14 + x \)
- \( x = 14y + 10 \)
- \( x = 10y - 14 \)
- \( 14y = 10x \)

Show your work
Choose the best answer

Austin makes $14 an hour. Write an equation that shows the relationship between the money made $x$ and the hours worked $y$ if Austin makes a flat rate of $10$. e.g. $y = 1x + 1$

- $10y = -14 + x$
- $x = 10y - 14$
- $x = 14y + 10$
- $14y = 10x$

Show your work

Choose the best answer

Aiden wants to make a unicorn hair wig, but a unicorn only sheds about 19 hairs per day. Write an equation to show the relationship between days $f$ and the total unicorn hairs shed $e$ if Aiden already has 2 hairs. e.g. $y = 1x + 1$

- $e = 19f + 2$
- $2f = -19 + e$
- $e = -2f - 19$
- $19f = 2e$

Show your work

Choose the best answer

Pioneers are buying mules to trek across the country. Each of the 18 wagons require $y$ mules to pull them. Write the equation to express the relationship between the total mules $x$ they need to pull all the wagons if they owe 4 mules to the mule collection agency. e.g. $y = 1x + 1$

- $x = 18y - 4$
- $18y = 4x$
- $x = 4y - 18$
- $4y = -18 + x$

Show your work
### Choose the best answer

Christopher wants to make a unicorn hair wig, but a unicorn only sheds about 14 hairs per day. Write an equation to show the relationship between days \(d\) and the total unicorn hairs shed \(c\) if Christopher first owes 9 hairs to his brother. e.g. \(y = 1x + 1\)

- \(14d = 9c\)
- \(c = 14d - 9\)
- \(9d = 14 + c\)
- \(c = 9d + 14\)

Show your work

### Choose the best answer

Benjamin is running a business and wants to predict the money lost to vehicle repairs. Vehicle maintenance costs are $7 per month and there was a one time credit of $8 given to him by the mechanic. Find the formula to relate the lost vehicle repair costs \(t\) and the month \(u\). e.g. \(y = 1x + 5\)

- \(7u = 8t\)
- \(8u = -7 + t\)
- \(t = -7u + 8\)
- \(t = 8u - 7\)

Show your work

### Choose the best answer

Tyler wants to make a unicorn hair wig, but a unicorn only sheds about 11 hairs per day. Write an equation to show the relationship between days \(g\) and the total unicorn hairs shed \(f\) if Tyler first owes 4 hairs to his brother. e.g. \(y = 1x + 1\)

- \(4g = -11 - f\)
- \(f = -4g - 11\)
- \(11g = -4f\)
- \(f = 11g - 4\)

Show your work
Choose the best answer

Farmer Dahlia has a supply of hay to feed the cows everyday. Write a formula to relate the hay lost \( v \) and the number of days \( w \) if the cows eat 13 bails of hay per day and Dahlia loses 4 bales due to mold. e.g. \( y = 1x + 5 \)

- \( 13w = -4v \)
- \( v = -13w - 4 \)
- \( 4w = -13 - v \)
- \( v = -4w - 13 \)

Show your work

Choose the best answer

Farmer Matilda needs to figure out how many total cattle \( n \) she will have next year. She counts her cattle \( o \) and knows each will produce 7 calves each year. Write an equation that shows this relationship and can be used to calculate how many cattle Matilda will have next year if Matilda is given 5 cows at the end of the year. e.g. \( y = 1x + 1 \)

- \( 5o = -7 - n \)
- \( n = 7o + 5 \)
- \( 7o = -5n \)
- \( n = 5o - 7 \)

Show your work

Choose the best answer

Aidentown is going through an economic downturn and jobs are being lost at a rate of 2 per month. As the mayor of Aidentown you need to write a formula to relate the number of months \( i \) to the number of jobs lost \( h \) if there was a one time loss of 1 job due to a factory explosion. e.g. \( y = 1x \)

- \( h = -1i + 2 \)
- \( h = -2i - 1 \)
- \( 1i = 2 + h \)
- \( 2i = 1h \)

Show your work
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